

A
TREATISE
ON
GONORRHŒA VIRULENTA,
AND
LUES VENEREA.

THE ARTS

CONGREGATIONAL CHURCH

LESS VERNER

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A
T R E A T I S E
O N
G O N O R R H Œ A V I R U L E N T A,
A N D
L U E S V E N E R E A.

BY
B E N J A M I N B E L L,
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OF IRELAND AND EDINBURGH,
ONE OF THE SURGEONS TO THE ROYAL INFIRMARY,
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VOLUME I.

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M,DCC,XCIII.

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TO
DOCTOR WILLIAM SANDERS

Senior Physician to Guy's

Hospital

Fellow of the Royal College of Physicians

London

And of the Royal Society



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his various exertions

teaching and

Science by

His efforts

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EDINBURGH
1840

TO
Doct^r WILLIAM SANDERS,
Senior PHYSICIAN to GUY'S
HOSPITAL,

Fellow of the ROYAL COLLEGE of
PHYSICIANS, London,
And of the ROYAL SOCIETY of Edinburgh,

These VOLUMES are respectfully dedicat-
ed, as a small testimony of regard, and
of public acknowledgement, for the ad-
vantages which have been derived from
his various exertions to promote the ex-
tension and general utility of Medical
Science, by

His obedient,

And very humble Servant,

BENJⁿ. BELL.

EDINBURGH, }
1st Nov. 1792. }

TO

DOCTOR WILLIAM SANDERS,

Senior Physician to Guy's

Hospital,

A
Fellow of the Royal College of
Physicians, London,
and of the Royal Society of Edinburgh,
on this (the 1st) of the month of
February 1844, your letter was
received, and in reply to inform
you that the Committee of the
College of Physicians, London,
have been directed to promote the
cause of the Hospital, and to
assist in the collection of funds
for the same. The Committee
have also directed that the
Hospital should be placed under
the management of a Committee
of the College of Physicians,
and that the Hospital should be
placed under the management of
a Committee of the College of
Physicians, London, and of the
Royal Society of Edinburgh.

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PREFACE.

AS many of the symptoms of Gonorrhœa and Lues Venerea become frequent objects of the surgeon's attention, I at one time, meant to have introduced a treatise on these diseases in the System of Surgery published some years ago, but I was prevented from doing so, by different publications upon the same subject being announced about the same period.

As these works have since made their appearance, and, as some of them have been very favourably received, it may be imagined, that farther writings upon this subject can scarcely at present be required. It must indeed be admitted that many valuable publications have come forth within these few years upon this branch of the

profession ; particularly one by Mr. John Hunter of London, intituled, a Treatise on the Venereal Disease ; and another intituled, Practical Observations on Venereal Complaints, by Doctor Swediaur. But although much information may be obtained from both of these works, as well as from some other late publications upon this subject, there is still much left for others to elucidate. Such is the effect of experience and observation, that farther advantages are daily accruing from the labours of individuals in the treatment of this as well as of almost every other disease ; and as this I hope will in some degree appear from the present publication, so I shall still expect to find that the future endeavours of others will prove yet more successful.

AMONG other points which I have more particularly attempted to elucidate, the treatment of Gonorrhœa by injections,

tions, and the quantity of mercury to be exhibited in Lues Venerea, are, perhaps, the most important; and I flatter myself that I have given views concerning them, which, in practice, will be found to merit attention. The cure of Gonorrhœa by injections is, no doubt, very universally practised; but while in a great proportion of cases it proves successful, in others it fails entirely: The cause of this, so far as I know, has never hitherto been explained. Whether I may have conveyed an adequate idea of my opinion upon this point I cannot positively say; but the observations upon which it is founded are such, that all who pay attention to the subject may be enabled readily to ascertain such cases as will yield to injections, as well as those in which no advantage is to be expected from them.

THE opinion which I have ventured to support, of the difference between the
matter

matter of Gonorrhœa, and that of Lues Venerea, will no doubt be censured by many. They ought, however, to recollect, in matters of opinion, which cannot be proved by demonstration, that some uncertainty must always take place; and before censuring with severity the opinions which others may suggest, they should consider whether their own may not be equally liable to objection. To me it appears that the reasons which I have adduced in support of my opinion are very conclusive, but I shall make full acknowledgment of my error, if sufficient reasons shall ever be given to show that it is ill founded. In the mean time, it will be perceived, that the theory which I have adopted does not lead to any deviation from the practice which now generally prevails upon this point, while it serves to explain more clearly than the opinion which has commonly prevailed, several of the phenomena of the two diseases, as
well

well as the cause of different remedies being necessary for each of them.

I do not expect that practitioners of experience and observation will derive much information from this publication, but I am hopeful that beginners will derive some advantage from it; for it has been equally my desire to exhibit a correct view of the different symptoms of which I treat, and to point out the method of cure in a manner that will be clear and intelligible. Where theory is ever admitted, it is chiefly with a view to explain, upon rational principles, such points as the ingenuity of some speculative writers have tended to render intricate.

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ON
GONORRHŒA VIRULENTA,
AND
LUES VENEREA.

CHAPTER I.

Consideration of the Question, Whether Gonorrhœa and Lues Venerea originate from the same Contagion?

AN opinion has been generally received among practitioners, that Gonorrhœa Virulenta and Lues Venerea are of the same nature; that they originate from the same contagion; and are only distinguished by the circumstance of

Gonorrhœa being a local disease of the urethra, while the other is a general affection of the system. But, as there is cause to imagine that these diseases arise from different specific contagions, and as the establishing of one or other of these opinions must influence the conduct of the cure, it becomes a matter of importance to institute an inquiry into this part of our subject.

Both diseases are contracted in a similar way; both, in the first instance, affect the genital organs; and they occasionally appear at the same time in the same patient: hence it has been concluded that they have a common origin, and one method of cure has been supposed applicable to either.

The refusal of some patients to submit to the distress and inconveniency, the frequent result of a protracted mercurial course, and who nevertheless recovered from the usual symptoms of Gonorrhœa, first suggested a doubt of the two diseases being produced by the same contagion. It is well known

known that Lues Venerea can be certainly cured by mercury only; and the opinion respecting the existence of a specific contagion of Gonorrhœa, arising from this obvious and marked difference in the method of cure, appears to be fixed and established by the following facts: The symptoms and consequences of Gonorrhœa are perfectly different from those which take place in Lues Venerea. Both diseases have appeared, at different periods, in the same countries; and, in some instances, they have remained distinct and uncombined for a great length of time.

That the symptoms of the two diseases are different, is universally known. A particular detail of such as are peculiar to each, will be given in the ensuing chapters. At present, it is only necessary to observe, that Gonorrhœa consists of a discharge of puriform matter from the urethra; which, even by those who support the contrary opinion, is now admitted to be, in almost every instance, a

local affection, and that it very rarely contaminates the general habit of body ; while Lues Venerea is a disease of the constitution, arising from the absorption of venereal virus from any part of the surface of the body, but most frequently from the genitals ; by which are produced buboes, ulcers in various parts, particularly in the nose and throat, pains and swellings in the bones, with a variety of other symptoms which it is not at present necessary to mention.

The first appearance of the Lues Venerea is, for the most part, in the form of a chancre or small ulcer, in some part of the penis. It is universally admitted, that even the slightest affection of this nature is apt to produce pox, or a general affection of the system ; insomuch, that no practitioner of experience will trust the cure of this symptom to local remedies. If the sore be left to itself, it almost always becomes worse. The matter which it affords is taken up by the absorbents ; and buboes, with the other symptoms

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enumerated above, very certainly ensue. These are almost the universal consequences of a sore produced by the venereal virus; but they also occur frequently where the skin remains sound and entire; that is, absorption of the venereal poison often takes place where no vestige of ulceration is perceptible. This, indeed, is denied by many; but I have met with various instances of it, and it will be admitted by every practitioner of experience. Now, this being established, in the application of the venereal virus to every other part of the body, if the matter of Gonorrhœa were of the same nature, why does it not, in almost every instance, enter the system, and produce pox? So far as we know, the urethra is as plentifully supplied with absorbents as other parts of the body; the same kind of matter, when applied to them here, ought therefore to be productive of similar effects: and hence *Lues Venerea* ought frequently, perhaps in every instance, to be the consequence of Gonorrhœa, were the matter

by which the two diseases are produced the same.

As this is a strong argument in favour of the two diseases proceeding from different kinds of contagion, much ingenuity has been exerted by those who support the contrary opinion, in endeavouring to account for it.

In the first place, it has been said, that Gonorrhœa sometimes terminates in pox, and, therefore, that this of itself is a sufficient proof of the two affections being of the same nature.

Were it certain that this ever happened, no farther evidence would be required, as a few well-marked instances would be conclusive; but every unprejudiced practitioner will admit, that no sufficient proofs of it have ever occurred.

In order to support this opinion, data must be received, which we know to be inadmissible. We must admit, that a person with chancres only, communicates to another, not only every symptom of pox, but of Gonorrhœa, and that another

other with Gonorrhœa only gives to all with whom he may have connection, chancres with their various consequences. This ought, indeed, to be a very common occurrence; infomuch, that every practitioner should be able to decide upon it with certainty, if this opinion was well founded: Instead of which, it will be admitted by all, that the one disease being produced by the other is even, in appearance, a very rare occurrence. I have paid much attention to the point in question; and, in almost every instance, a few cases indeed only excepted, and where the most particular inquiries even were made, it has happened, that a person infected with Gonorrhœa has received it from another evidently labouring under that disease, and that chancres have been communicated by such as were distressed with chancres only.

This, I am convinced, will be very commonly found to be clearly the case; so that a few instances, bearing some appearances of the contrary, are much more

readily explained on the idea of the two diseases being produced by different kinds of contagion; and this may also be said of the few solitary cases that may be met with, of chancre being supposed to terminate in Gonorrhœa, and Gonorrhœa in chancre, and other symptoms of pox. We can more easily conceive that the same person should, in some instances, receive, and therefore be able to communicate, both kinds of contagion, than that the incident we are considering should be so seldom met with, were the opinion well founded, of the two diseases being originally of the same nature.

However ill founded an established opinion may be, if it has received the sanction of being generally adopted, we know how difficult it is to overturn it. There are few who enter so minutely into the consideration of such points as to be able to decide upon them; and of those who do, there are very few who will take the trouble of engaging in such discussions as are necessary for the conviction of others.

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This may be considered as the chief cause of the point in question remaining so long in obscurity, as well as of the explanation hitherto usually given, of various circumstances in Gonorrhœa and Lues Venerea having been uniformly made to support it. It will also serve to account for circumstances being held forth as matter of fact, which, on inquiry, are perceived to be ill founded ; for, when once an opinion is admitted, we are apt to give such an explanation of whatever may seem to relate to it, as can in any way tend to support it.

Thus, although few in the present age will assert that Gonorrhœa often terminates in Lues Venerea, yet by many we are told, that it is very apt to do so when it is improperly treated. Whatever puts a sudden stop to a severe or copious discharge from the urethra is by many supposed to do harm. Hence all who condemn the use of injections in Gonorrhœa affirm, that they often convert a simple clap into a pox, by throwing into the blood what otherwise would have been carried

carried off. This, however, is by no means supported by experience. A stimulating injection will no doubt excite pain and inflammation in the urethra; and this, in some instances, will be productive of swelled testes, and perhaps of sympathetic swellings in the glands of the groin; but I have not known a single instance of pox induced in this manner: and as I have long been in the daily use of injections, many cases of it must have occurred, if the idea I have just stated were well founded. Till of late, indeed, a patient who was so unfortunate as to have a clap suddenly stopped, was so certainly considered as poxed, that he was immediately put under a very complete course of mercury, by which he was made to undergo a very unnecessary and distressful confinement.

Although this practice, however, is now very commonly exploded, yet there are some who still adhere to it. I was called, in April 1784, to visit a gentleman who, in a Gonorrhœa attended with

a good deal of inflammation, had been so foolish as to live freely, and to ride much on horseback. This, with the unguarded use of a very stimulating injection, put a sudden stop to the discharge; and at the same time it excited a very considerable degree of pain and inflammation along all the posterior part of the urethra, towards the prostate gland and neck of the bladder, attended with a painful and frequent desire to make water.

On the idea of these being symptoms of pox, he was immediately put under a course of mercury; and, when I first saw him, he had been using it for the space of six weeks. The surgeon in attendance acknowledged that no advantage had been derived from it; and the patient himself said that his distress was daily increasing. They were both, therefore, easily persuaded to lay the mercury aside; and, by the repeated application of leeches to the perineum, of fomentations, and opiates, to allay the pain, the inflammation soon
began

began to subside ; and, in a short time, he was perfectly well.

In December 1788, a young man called upon me, with a painful hard swelling in his groin, of an oblong form, nearly an inch in diameter, and reaching from the ring in the external oblique muscle down to the top of the testis. It appeared suddenly, about four months before, and seemed to be the consequence of a clap being too hastily stopped. He was at first attacked with severe pain at the neck of the bladder, which stretched to the groin, and down to the testis of the same side. This, together with a constant and painful inclination to void urine, rendered his life miserable. Nor was his distress in any degree abated by a course of mercury which he was immediately put under. On the contrary, the swelling, which at first was not thicker than a common quill, was now very considerable. My idea of the swelling was, that at first it had been merely an inflammatory affection

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tion of the vas deferens, which by degrees had spread to the rest of the spermatic cord; but, what was unusual, it had never affected either the testis or epididymis. As a considerable quantity of mercury had been taken, and as, instead of proving useful, it had rather appeared to do harm, the surgeon whom he employed was easily persuaded to trust the cure to other remedies. Local bloodletting with leeches was frequently repeated, both in the perineum and groin. The parts were regularly fomented with a solution of saccharum saturni. His bowels were kept easy with gentle laxatives, and he was put upon a mild diet of milk and vegetables. In a few days the pain abated, and the tumour gradually lessened, till at last, in the course of five or six weeks, it was entirely gone.

In the course of last winter, I attended two different patients, with alarming symptoms about the neck of the bladder, evidently induced by the improper management of Gonorrhœa. The parts in
both

both were not merely pained, but considerably swelled; and, at the same time, almost a total suppression of urine took place. Although in both the discharge from the urethra had been suddenly stopped, I did not advise mercury. The patients being both plethoric, were plentifully bled, first at the arm, and afterwards repeatedly with leeches in the perineum. This, with fomentations, and opiates to allay the violence of the pain, assisted by a cooling regimen and gentle laxatives, very soon completed the cures.

These instances are given out of a great number that might be adduced, merely to shew, that the symptoms which supervene on the sudden stoppage of a clap, are local, and not connected with any affection of the constitution, which they necessarily would be, if they were of the same nature with Lues Venerea.

It will perhaps be said, that although this may have happened in a few cases, yet that in others there has been cause to suspect, that Lues Venerea has been the
confe-

consequence of a clap disappearing in this manner. In answer to this, it is sufficient for me to shew, that this is at least a rare occurrence, as I think I am intitled to do, from my never having met with an instance of it. It has been supposed, that the sudden check given to the discharge in cases of clap, must necessarily throw the matter into the blood, and that pox must accordingly ensue from it. Were the matter of the two diseases the same, this would happen in every instance; so that, when we can shew that it seldom happens even in appearance, we are entitled, from this argument alone, to conclude, that they are produced by two different kinds of contagion; and, where pox has appeared at the sudden termination of Gonorrhœa, that the two kinds of infection had either been communicated together; or, what may more frequently perhaps be the case, the patient will be found to have received the pocky contagion by communication with a diseased woman at the very time he laboured under Gonorrhœa.

hœa. I have already remarked, that Lues Venerea is frequently produced by absorption while the skin remains entire, and where no chancre or excoriation is perceptible. There is therefore much cause to imagine, that in long continued cases of Gonorrhœa, many may be infected with Lues Venerea by communication with others labouring under it; and as this may happen without any external mark of it taking place, it is not surprising that some fallacy should arise from this circumstance.

The abettors of the opinion, that the matter of the two diseases are the same, admit that Gonorrhœa very seldom terminates in pox *. And they attempt to
account

* This is even granted by one who keenly supports the opposite doctrine in every other point. In speaking of Gonorrhœa and Chancre not terminating so frequently as might be expected in the production of each other, he says, "Although it does not often happen, yet it sometimes does, *at least there is great reason to believe so.* I have seen cases where a Gonorrhœa came on, and in a few days after in some, in others as many weeks, a
" chancre

account for this, that is, for the two diseases not being produced more frequently by the application of the same matter, by saying, that this depends upon the difference of parts to which the matter is applied.

They divide the different surfaces of the body chiefly into two kinds, what they term *secreting surfaces* and *non-secret-*

“ chancre has appeared ; and I have also seen cases where
“ a chancre has come first, and in the course of its cure a
“ running and pain in making water have succeeded.”

V. Treatise on the Venereal Disease, by John Hunter, page 16.

This is what every practitioner has seen ; but by admitting so clearly that it is a very rare occurrence, Mr. Hunter tends rather to strengthen the contrary opinion : for, were the two diseases produced by the same kind of matter, the one would clearly and necessarily *often* terminate in the other. In the few cases which Mr. Hunter, in the course of extensive practice, has met with, there is more cause to imagine, either that the two diseases were communicated at once, or that the one was given while the patient laboured under the other, than that nature should deviate so much from her ordinary course as to produce them in a few instances so very differently from what obviously happens in the course of general observation.

ing surfaces. By the first they mean all the passages for extraneous matter, including also the ducts of glands, such as the mouth, nose, eyes, arms, and urethra; and by *non-secreting* surfaces, the external skin in general. To which they add a third kind of surface, leading from the one to the other, as the glans penis, prelabium of the mouth, the inside of the lips, and the female pudendum: which surfaces, partaking of the properties of each of the others, but in a less degree, are capable of being affected in both ways, sometimes by being excited to secretion, and at other times to ulceration *.

Upon this, their theory, or opinion of the point in question, is attempted to be established: When the contagion, either of *Gonorrhœa* or pox, and which they consider to be the same, is applied to any part of the external skin, particularly to the glans penis, where the skin is very

* Vide John Hunter on the Venereal Disease.

thin,

thin, chancre or ulceration, they observe, will most readily ensue, as these are *not secreting surfaces*; while the same kind of matter applied to the urethra must necessarily excite Gonorrhœa, from this being a secreting surface, and therefore not so easily affected with ulceration as with irritation; by which an increased discharge, attended with some change in the mucus of the part, must accordingly be produced.

This idea, however, is more ingenious than solid. It might answer the purpose of giving a specious appearance to an ill-founded opinion, but it will not stand the test of inquiry.

In the first place, on the supposition of the matter of Gonorrhœa and *Lues Venerea* being the same, the latter ought to be a much more frequent occurrence than the former, from the greater ease with which the matter of infection must, in every instance, be applied to those parts on which it can produce chancres than to

the urethra, where, instead of chancre or ulceration, it almost always excites Gonorrhœa. It is difficult to conceive how the matter by which the disease is communicated should find access to the urethra; while, on the contrary, all the external parts of the penis, particularly the glans, must be easily and universally exposed to it; and yet Gonorrhœa is a much more frequent disease than pox. Cases of Gonorrhœa are in proportion to those of Chancre and Pox, so far as my observation goes, of about three to one; while it is obvious, that the very reverse should happen, if the two diseases were produced by the same kind of matter *.

Again, were this the case, should we not find Gonorrhœa, in almost every in-

* Mr. Hunter supposes, that the proportion the cases of Gonorrhœa bear to those of Chancre, is as four or five to one. Vide Treatise on the Venereal Disease, p. 217. This is surely a weighty argument against the opinion he endeavours to support, of Gonorrhœa and Chancre proceeding from the same contagion.

stance,

stance, terminating in Pox, and Chancre in Gonorrhœa; for every one knows, that in Gonorrhœa the matter is at all times passing from the urethra over the glans and prepuce, and in Chancre, that it is passing from the glans into the entrance of the urethra. It happens indeed, in a few instances, (Mr. Hunter, we see, has met with some cases of it) that the one disease supervenes upon the other: but we have also seen that these are rare occurrences; and, where they have not been communicated by subsequent connection with an infected person, that the two diseases have probably been given at one and the same time. It is no argument against this suggestion, to say, that instances have been met with of a Gonorrhœa appearing during the continuance of chancres of several weeks duration, and *vice versa*; for every practitioner must have met with instances of these diseases both appearing at the distance of two or three months from any exposure to infection.

I have at this moment a gentleman under cure, for a deep, foul chancre, altogether within the urethra. It was of several weeks duration before I saw it, and yet no Gonorrhœa took place. He is now getting well, by a complete course of mercury, and repeated application of caustic.

I have met with various cases of this, as every practitioner must have done; and, so lately as the month of April last, I was called to a gentleman with a painful chancre on each side of the urethra. The sore extended about the eighth part of an inch up the passage; and the parts being much inflamed, I hesitated to apply caustic. This rendered the cure tedious, but still no Gonorrhœa took place. At last, after having taken a considerable quantity of mercury, and when the chancres were looking clean, and in a healing state, he was seized with all the symptoms of a severe clap, with heat in making water, chordee, and a plentiful discharge of a thin green matter. This, however, bore
all

all the appearance of a recent infection. I at once said so to my patient; and he candidly acknowledged that he had imprudently exposed himself, by having connection with a girl of the town, three or four days previous to the accession of these symptoms.

We may also remark, that the discharge from Gonorrhœa frequently becomes so acrid as to excoriate the glans and preputium, and even to excite a very plentiful formation of matter; but every one knows that this is materially different from chancre. It is altogether different in appearance, and so materially different in its effects, that scarcely any practitioner of experience will trust the cure of chancre to any thing but mercury, while, in the other, mercury, I imagine, is very seldom employed. However extensive the excoriations may be, they are easily removed by local remedies; and I have never known an instance of pox succeeding to this kind of treatment. Nay, I have met with various instances of such

affections, where mercury had been given in considerable quantities with no advantage whatever, and where a cure was effected by the use of an astringent wash.

About eighteen months ago, a gentleman came to town from a considerable distance, with an extensive excoriation over all the glans and preputium, attended with a discharge of a large quantity of thin, offensive matter. The quantity of matter indeed was so considerable, that at first sight it appeared to be the discharge from a very inveterate recent case of Gonorrhœa; but, on farther examination, it was found to proceed entirely from the glans and prepuce, the clap by which it was produced being entirely gone.

He had taken mercury for the space of six weeks; and the parts had been regularly bathed in milk and water, but with no advantage. The discharge continued as plentiful as ever, and the preputium was beginning to acquire some degree of thickness, and to be difficult to retract.

In

In the space of a week he was completely cured, merely by bathing the parts from time to time with brandy and water, and applying, during the night, a poultice strongly impregnated with *saccharum saturni*.

This, as well as a variety of similar affections, which, were it necessary, I might enumerate, clearly evince, not only that the matter of *Gonorrhœa*, when confined to the urethra, does not terminate in pox, but that it proves equally inoffensive to the constitution, where it is even so sharp and acrid as to excoriate the surrounding parts. This points out a very marked difference between the matter of the two diseases. In pox, even the slightest fore never fails to throw matter into the system, while the most extensive affections proceeding from *Gonorrhœa* are so seldom found to injure the constitution, that I have never met with an instance of it.

By those who wish to support the opposite doctrine, it is said, that the matter
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of Gonorrhœa would more frequently terminate in pox, were it not for the mucus of the urethra with which it is blended, and by which they suppose it to be rendered not only milder in its nature, but not so apt to be taken up by the absorbents. This, however, is merely ideal; and no proof can be advanced in support of it. Besides, the force of the argument is entirely done away, when we see, from what has been observed above, that even where the matter of Gonorrhœa is more acrimonious than almost ever occurs in cases of Chancre, so as in some instances to produce very extensive excoriations, that still no affection of the constitution ensues from it.

Nay, we see, even in such diseases as are found to proceed from what is termed a translocation of the matter of Gonorrhœa to other parts of the body, and which we suppose to happen through the medium of the circulation, that still no affection of the constitution proceeds from them. This is particularly the case in such instances
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of ophthalmia as sometimes proceed from Gonorrhœa, and in which a considerable discharge takes place, of a puriform matter from the eye-lids, very similar to the matter of a recent clap. I have also met with instances, of patients labouring under Gonorrhœa being seized with a similar discharge from the membrane of the nose; but in none of these have I ever known *Lues Venerea* ensue. A considerable number of examples might be adduced of each of these; but the three following will be sufficient.

In the year 1786, a young man applied to me, with a very troublesome painful disease in both eyes. The eye-balls were not much inflamed outwardly; but as he experienced an intense degree of pain from the admission of light, I concluded that the retina, or other deep-seated parts of the eye, were in a state of inflammation; and the membrane of the eye-lids was not only inflamed, but a constant and copious discharge took place from them, of a greenish yellow matter, bearing much the appearance of the matter of a recent clap.

The

The account I received of his disease was this: That he had for eight or ten days laboured under Gonorrhœa, the symptoms of which, however, were not more severe than usual; when, after being heated with drinking port wine, the discharge from the urethra, which had previously been copious, disappeared almost entirely. His eyes, almost immediately thereafter, became painful; and, in less than twenty-four hours, the discharge of matter had taken place from the eye-lids.

The disease was at first treated with blisters, slight evacuations of blood, and the usual applications of ointments and collyria. These not proving successful, a course of mercury was prescribed: but, although different attempts were made with it, mischief always ensued from it. It did not lessen the discharge, while it obviously increased the inflammation, and rendered the eyes more irritable. I therefore advised this remedy to be laid aside. A quantity of blood was taken from the
temporal

temporal artery of one side; such vessels as were turgid upon the eye-balls were divided; scarifications were made in the inflamed parts of the eye-lids; poultices were applied over the eyes, in which opium and saccharum saturni were dissolved; and gentle laxatives were prescribed. By these means the pain soon abated; the inflammation and discharge of matter lessened; and, in the course of a fortnight, no symptom of the disease remained, but a degree of irritability on exposure to much light, with which both eyes continued to be distressed for five or six months thereafter.

In the course of the following year, on being attacked with Gonorrhœa, but of a more violent nature than the former, he was again seized, after exposure to much cold, and riding on horseback, to a similar affection of his eyes. In this instance, too, bloodletting, and the other remedies formerly prescribed, proved successful; and he has not since that period had any return of the disease.

About

About two years ago, I was desired to visit a patient, who, during confinement from a swelled testis induced by a Gonorrhœa, was suddenly seized with a profuse discharge of matter from one of his nostrils, very similar to the running of a clap. The membrane of the nostril appeared tender, and somewhat inflamed; but little or no pain occurred from it. The discharge from the urethra had diminished considerably previous to the testis becoming inflamed, and, on this taking place from the nose, it disappeared entirely. This suggested the propriety of attempting to excite a return of the discharge by the urethra; but no advantage being derived from this, I advised the affection of the nose to be treated with injections similar to what we use in cases of clap. An astringent solution was thrown up, sometimes with a syringe, and at other times by inserting a bit of sponge immersed in it up the nostril; and in the course of a few days the running ceased entirely.

Since

Since that period, the same patient has been twice affected in a similar manner, and the same kind of treatment proved equally successful. No mercury was given, and no symptom of pox has ever appeared.

In the course of a few weeks after the recovery of this patient from the first attack of the disease, I was desired to see a friend of his, who for several years had been distressed with a similar discharge from both his nostrils. The running had occurred during the continuance of a clap; and although it had frequently diminished in quantity, yet at all times it was so considerable as to be productive of much uneasiness. No ulceration appeared on the membrane of the nostrils, but it was of a deep red colour, and tender over its whole extent. A variety of remedies had been employed; and at last, after the disease had gone on for upwards of three years, although no other symptom appeared, he was advised to undergo a course of mercury.

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This was done in the most attentive manner; but no advantage ensued from it.

In this situation, I expected that the same plan of treatment which proved successful in the preceding case, and which had also done so in others, would likewise answer here. In this, however, I was disappointed; for, although every variety of injection was used that I ever employed, yet no material advantage ensued from them. The running was sometimes indeed lessened by them, but it always returned equally severe as before; and although it has of late, even when no remedies were employed, become considerably less, it still continues in such quantities as to prove highly distressful. No other symptom of the disease, however, has ever occurred.

As a farther proof of the difference of the contagions of Syphilis and Gonorrhœa, it may be remarked, that no stage of pox has ever been known to induce Gonorrhœa, which surely would occasionally

ally happen, if the two diseases were of the same nature. We may also remark, that, in numberless instances, people have been poxed by the matter of Syphilis being by accident applied to a cut or a scratch, as often happens with surgeons in the dressing of chancres and buboes; but no one ever heard of a pox being got in this manner from the matter of Gonorrhœa. It has indeed been said, that chancres may be produced by insinuating the matter of Gonorrhœa beneath the skin. But experiments upon this subject are productive of such anxiety and distress, that they never have been, nor ever probably will be, repeated so frequently as the nature of it would require. Nothing, therefore, can be admitted from this argument; for, in order to avoid fallacy, and to give support to the opinion, these experiments would not only require to be conducted with accuracy, but to be numerous, and to be repeated on a variety of patients under every possible variety of circumstances; whereas we have

heard of only a single experiment or two being made by any individual; and even these seem to have been made under the management of such as were strongly and obviously biased in favour of one side of the question.

In opposition to these, too, I may mention, that, induced by some late publications upon this subject, two young gentlemen of this place have made some experiments upon themselves, with a view to ascertain the point in dispute; but the result was materially different from what appears to have happened in the experiments to which I allude. By the introduction of the matter of chancres, as well as of buboes, into the urethra, some pain and irritation were excited, but no Gonorrhœa ensued; and, by fretting the skin of the prepuce and glans with a lancet, and rubbing the parts with the matter of Gonorrhœa, slight sores were produced; but they never assumed the appearance of chancres, and they healed easily without the use of mercury.—For the

the reasons mentioned above, however, we cannot place much dependence upon these or any other experiments that have yet been made upon this subject; we must trust therefore to experience and observation in the ordinary course of practice for means to ascertain it.

The other fact on which the doctrine we attempt to establish rests, is, that Gonorrhœa and Syphilis have appeared at different times in the same countries, and in some instances have remained distinct and uncombined for a great length of time.

If these two diseases were of the same nature, and proceeded from the same contagion, they ought to have appeared nearly at the same time in every country to which the infection was carried. This does not appear, however, from the history of the disease, to have been the case. From the earlier writers upon this subject, it is evident, that the *Lues Venerea* was known in Europe at least forty years before the *Gonorrhœa Virulenta*. Doctor Astruc, whose accuracy and minute at-

tention to this subject has not been equalled by any one, asserts, that in his time Gonorrhœa had not been long known in China, although we know that the Lues Venerea had long prevailed in that country: and it would appear, notwithstanding of any thing that has been said to the contrary, that the Lues Venerea was imported to the island of Otaheite a considerable time before Gonorrhœa. It seems to have been carried to that and other islands in the south seas by the very first European navigators who touched there, and to have remained distinct, without being connected with Gonorrhœa, for a very considerable time; for, when Captain Cook visited these islands in his second voyage, we have authority for saying, that Gonorrhœa had not then appeared in them.

These historical facts all tend to prove, that where only one of these diseases has been imported to any particular district, it has always remained distinct, without producing the other; and which

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we cannot suppose would have happened, if both were formed by the same contagion. And, in addition to these, I may add another, not less remarkable, the truth of which may be ascertained by all who incline to inquire concerning it, as the scene of it lies in our own country.

In various parts of the country of Scotland, particularly in some parts of the Highlands; in Galloway, and in Dumfries-shire; the common people have, for a great length of time, been afflicted with the *Lues Venerea*, under the denomination, as they term it, of Sibbens; and which, from those distressed with it having no communication with those infected with *Gonorrhœa*, has still retained its original, unmixed form, without a single instance, so far as I know, of *Gonorrhœa* having been ever produced by it *.

There

* This must have happened from the disease in these districts prevailing almost entirely among poor country people, whose manners do not expose them to the hazard of being infected with *Gonorrhœa*. None, however,

There is evidence, in some of these districts, of this disease having prevailed among them for upwards of seventy years; Nay, in some of them, it is said, from tradition, to have been left there by the soldiers of Oliver Cromwell, and to have been given, since that period, by one generation to another; and, although I have had opportunities of seeing many hundred people labouring under it, with ulcers in the throat, nodes of the bones, fungous excrescences about the anus, blotches over the body, with almost every other symptom of Syphilis, yet not an instance has occurred to me, as I have observed above, nor have I heard of any, where Gonorrhœa took place in it. Whether it is from those infected with it concealing it longer than usually happens in towns, or what may be the cause of it, I shall not

can escape the Sibbens who are much in company with those labouring under it; and so much are they convinced of its being the same disease with Lues Venerea, that even those who get it in the most innocent manner, are so much ashamed of it, that they never speak of it as long as it can possibly be kept secret.

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at present pretend to determine ; but certain it is that the symptoms produced by it are more inveterate than we usually find them to be in the ordinary form of this disease. They appear to be more particularly infectious ; the slightest communication with those labouring under the disease being apt to produce it. The symptoms spread more rapidly, and a greater quantity of mercury is, for the most part, required to remove them ; but still Gonorrhœa is never produced in any stage of the disease,

A disease very similar to this broke out among the country people of Canada, some years ago, owing, as is imagined, to communication with some of the soldiers quartered among them, who were infected with *Lues Venerea*. It is attended, as is the case with the Sibbens in Scotland, with all the symptoms of Syphilis in the most virulent form of that disease ; and it is so very infectious as to be communicated by eating or drinking out of the same vessel, or drying with the same

cloth that has been used by those labouring under it. It often enters the constitution by absorption from the surface, without any previous ulceration: In which case it afterwards breaks out in buboes, nodes, ulcers, and other symptoms of a confirmed Lues; but not an instance, I am informed, has happened, of Gonorrhœa being produced by it.

This, as well as what has occurred in the progress of Sibbens, is precisely what happened with the Lues Venerea, when it first appeared in Europe, as well as at a late period in the South Seas; and there cannot be a doubt of the same circumstances taking place wherever the Syphilis only is communicated. We have seen, in all these instances, that Gonorrhœa has never been produced by it, which surely could not have happened if the two diseases were of the same nature, and produced by the same contagion. They could never, in that case, have remained for any length of time so distinct and precisely marked; for the one must necessarily

family, in almost every instance, have soon been productive of the other.

As a farther support of this opinion, I may add, that if the two diseases were of the same nature, and produced by the same infection, the remedies proving useful in the one might be expected to prove likewise so in the other. Instead of this, we find that those upon which we depend with most certainty in Gonorrhœa, have no effect whatever in the cure of Syphilis, while mercury, which is the only remedy, as we have observed above, upon which any dependence can be placed for the cure of Syphilis, does not, in Gonorrhœa, produce any advantage. Nay, that in some cases, it evidently does harm.

We also know, that Gonorrhœa will often terminate whether any remedy be employed or not, merely by moderate living, and keeping the parts regularly clean. The disease by this alone will, in most instances, become gradually milder, till at last it will disappear entirely. No such thing, however, happens in *Lues Venerea*

Venerea. In this, as we have already remarked, even the mildest symptom becomes daily worse, unless mercury be employed; nor will any practitioner of experience trust the cure even of the slightest chancre to any other remedy.

Upon this evidence alone, of the method of cure of the two diseases being essentially different, we might, I think, conclude that they are different in their nature, and that they proceed from different contagions. Were they of the same nature, and proceeding from the same cause, it is not possible to conceive that any medicine would act as a certain cure for the one and do harm in the other, and yet every practitioner will admit that mercury is the only remedy hitherto known, upon which we can depend for the cure of Lues Venerea, while it evidently often does harm, as I have already observed, in Gonorrhœa.

If the subject now under discussion was merely of a speculative nature I should not have entered so minutely into it,
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for in that case it would have been a matter of indifference both to practitioners and patients whether these diseases were of the same nature or not; but, as the treatment of Gonorrhœa ought to depend much upon this circumstance, I judged it proper, before proceeding to treat of it, to make this attempt to have the point in question ascertained.

C H A P. II.*Of the Gonorrhœa Virulenta.*

SECTION I.

*General Observations on the Symptoms, Causes,
and Seat of Gonorrhœa Virulenta.*

EVERY discharge of matter from the urethra, excited by impure coition, is termed Gonorrhœa Virulenta. As the term implies a discharge of semen, and as this disease is not necessarily attended with any feminal evacuation, it is here obviously misapplied; but we think it better to retain even a faulty denomination

tion when very universally received, than to incur the hazard arising from the confusion which might ensue from the proposal of amendments.

The period at which the discharge takes place, after exposure to infection, is always uncertain. I have known it happen in a few hours ; often in the course of a day or two, and in some instances not till several weeks have elapsed. From the third or fourth day, to the seventh and eight, is the most frequent period.

This does not appear, however, to have any effect on the nature or violence of the symptoms. Some indeed have imagined, that the disease must be mild or severe according as it appears early or late after the matter of infection has been applied ; but this does not accord with my observation. I have often known the symptoms mild when they appeared early after exposure to infection, and severe when much time had elapsed. In one of the most obstinate cases of *Gonorrhœa* I have seen, the running did not appear till nearly the ninth week

week from the time of infection. A gentleman sailed from Jamaica two days after having connection with a woman of suspicious character. No symptoms appearing till several weeks had elapsed, he concluded that he had escaped; when, two days before coming into port, being the fifty-eight of his voyage, a very copious running appeared.

In some few cases, the discharge takes place without the patient having any warning of its approach; but, for the most part, it is preceded by symptoms indicating some degree of inflammation in the urethra: A sense of fulness and tightness is felt over all the under part of the penis; the patient has a more frequent desire than usual to void urine, accompanied with a peculiar kind of itching heat along the urethra, at the same time that the extremity of that canal is observed to be of a more deep red colour than ordinary, and more than usually tender to the touch. In some cases, too, the urethra seems to be contracted, or lessened in its diameter;

diameter; the urine coming off in a stream much smaller than natural, while at other times it is forked, as if the passage was divided in two.

On the running appearing it is sometimes white, and nearly of the consistence of purulent matter; but, for the most part, it is thin, and of a yellow green colour. In some cases it is brown, resembling the discharge of old scorbutic sores, and in others it consists almost entirely of blood, owing to the erosion or rupture of one or more blood-vessels in the urethra. In a great proportion of cases, the discharge of matter from the urethra, and scalding heat in making water, are the only symptoms which take place; but in others, these are accompanied with chordee, or painful involuntary erections; with much uneasiness in the testes, which frequently become so tender and irritable that the slightest touch excites pain. Severe degrees of pain often stretch from the penis to the groins and thighs; and in some cases over all the abdominal viscera,

cera, particularly over the under part of the belly.

In some cases the chordee, and in others these sympathetic pains stretching to the groins, and contiguous parts, are the most distressful symptoms of the disease. I have known the latter so severe as to render the patient altogether unable to take any kind of exercise; while the chordee, which is usually worst in bed, is apt to deprive him entirely of sleep.

Besides these pains in the parts contiguous to the penis, and which we suppose to be chiefly the effect of nervous irritability, the glands in the groin in some instances swell, and become hard; but unless the running be accompanied with chancres, these swellings very commonly subside, and do not proceed to suppurate; an important fact, which may be considered as an additional proof to what was mentioned in the last chapter, of the difference between Gonorrhœa and Lues Venerea.

In

In the course of the disease the glans penis sometimes becomes red and inflamed, and a yellow, foetid matter, oozes from its whole surface. In some cases this is accompanied with evident ulceration: in others the skin remains entire, and the matter is observed, upon pressure, to proceed from an infinite number of small points. In both they are supposed to proceed from the matter passing out of the urethra, and allowed, by the negligence of the patient, to rest too long upon the tender cuticle of the glans.

In some cases, however, this inflammatory affection of the glans, and discharge with which it is accompanied, takes place of itself, and without any discharge from the urethra. In which case, from the resemblance which the matter bears to that of Gonorrhœa, it has usually been termed *Gonorrhœa Spuria*. This inflammation, in some cases spreads to the prepuce, in which it very commonly produces some degree of contraction. When the prepuce becomes so much

straitened that it cannot be drawn back, a disease is formed, which we term *phymosis*; and, when it contracts behind the glans, a disease termed *paraphymosis* takes place.

Although in *Gonorrhœa* some degree of uneasiness is usually felt along the whole course of the urethra, yet we know, that in most instances, the seat of the disease lies within an inch, or little more, of the point of the penis. In a few cases, however, whether from maltreatment of the disorder; from the nature of the infection being more than usually virulent, or from peculiarity of constitution of the patient, the disease spreads backward till it extends over the whole length of the urethra, even to the bladder itself. The prostate gland and internal coat of the bladder become affected, and sympathetic pains stretch from these parts along the ureters to the kidneys.

When the bladder becomes in this manner diseased, the state of the patient is, for the most, extremely miserable: he
feels

feels almost a constant desire to make water, accompanied with severe pressure or bearing down upon the affected parts, proceeding from involuntary spasmodic contractions of the abdominal muscles. The whole region of the loins, particularly about the kidneys, becomes so painful and irritable, that much distress is excited by whatever tends to bring the muscles of these parts into action, and the patient often complains of a constant tenesmus, and of a frequent shooting pain about the anus and neck of the bladder.

In this stage of the disorder there is seldom any considerable discharge from the urethra; but, for the most part, a large quantity of very viscid-fœtid-mucus is discovered in the urine, which, in the course of a few hours, subsides, and adheres so firmly to the sides of the vessel as not to be easily separated.

When a *Gonorrhœa* has either been improperly treated, or when much inflammation takes place from any other cause, the testes are apt to swell and inflame,

and abscesses often form in Cowper's glands, as well as in other parts of the urethra. When these burst outwardly, or when the urine by any means finds access to them, they are often productive of great distress to the patient and perplexity to the practitioner, as they frequently baffle every attempt that is made for removing them.

It will readily be conceived that all the symptoms we have described are seldom or never met with in the same patient, and that these which do take place will be in very different degrees in different cases. This is particularly remarkable with respect to the quantity of discharge, which, in some instances, is so trifling as scarcely to excite any inconvenience, whilst, in others, it is so profuse as to prove highly distressful. In some cases too, the heat of urine is so inconsiderable as not to deserve notice; and in such instances also, the desire to pass water is seldom very frequent, while, in others, these symptoms
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are both so unsupportable as to render the patient miserable.

In most instances of Gonorrhœa any external inflammation which occurs is confined to the extremity of the urethra; but, in some cases, it runs so high as to spread over the whole glans, where it might be expected to terminate, as inflammatory affections in other parts of the body most frequently do, in the formation of abscesses. This, however, very rarely happens. We have observed, above, that, in a few instances, a purulent-like matter oozes from the whole surface of the inflamed glans; but I have scarcely known an instance of any extensive abscess in the substance of the glans. The inflammation, for the most part, terminates by dispersion. In a few cases it ends in mortification.

In women the symptoms of Gonorrhœa are, for the most part, much milder than in men. It sometimes happens that a flow of matter is all that occurs; and, as the discharge is very similar to the mat-

ter of fluor albus, the two diseases are often mistaken for one another.

This absence of pain, however, takes place only where the vagina is the seat of the disease. When the urethra becomes affected the symptoms are nearly the same as in the other sex. A distressful degree of irritation occurs at the extremity of the urethra, accompanied with heat of urine, and a very frequent desire to pass water. In some cases the inflammation spreads to the bladder, and even to the kidneys, uterus, and ovaria; or at least these parts come to be so much affected with pain as to give cause to suspect that they are in a state of inflammation. Pain, even in a severe degree, will no doubt occur from nervous sympathy, and this I believe to be frequently the case here; but I have met with different instances of a considerable degree of inflammation being excited by Gonorrhœa in all the parts which I have mentioned: that is, they have become swelled, hard, and excessively painful, in so much that the slightest touch would
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create a great degree of uneasiness; and blood-letting, with other evacuations, were the only remedies from which relief was obtained. In some cases the matter is so sharp and acrid as to excoriate the clitoris, nymphæ, and labia pudendi. This excites a great deal of uneasiness; more than ever takes place in men from a mere affection of the external parts; for, as these parts are in women pressed upon in sitting, the slightest degree of inflammation is, from this cause alone, productive of much distress. They are often obliged to remain constantly in bed; being unable either to walk, stand, or sit.

It is impossible, in any case of Gonorrhœa, to determine at first, in what manner it will terminate, for we often find the most severe, as well as the most obstinate discharge, succeed to symptoms of the mildest nature, while in some cases it ends quickly and easily, where the symptoms at first were very severe. It is in general believed that the disease will be mild, and of short duration, where the

running is white or yellow; and, on the contrary, that it will necessarily prove severe and tedious, where it is at first green, or much tinged with blood. This, however, is by no means universally the case; for instances occur daily, of the running proving tedious, where it was at first of the colour and consistence of purulent matter, while others often happen of its ending quickly, where the matter was at first either deeply tinged with blood, or of as deep a green as this discharge has ever been observed.

In the progress of this disease, we always reckon it a favourable circumstance to observe the matter become thick and ropy. This cannot indeed be mentioned as an infallible proof of the discharge being soon to terminate; but it is, undoubtedly, one of the most favourable occurrences in every case of clap. When the running does not soon become ropy, it is apt to terminate in gleet, the most perplexing symptom in this disorder, and
of

of which we shall speak more particularly in an ensuing chapter.

We shall hereafter have occasion to observe that a discharge may be produced from the urethra by different causes, very similar to the matter of *Gonorrhœa virulenta*. At present it is only necessary to remark, that, in this disease, the discharge is obviously the effect of irritation excited in the membrane of the urethra and contiguous parts, by matter from an infected person being applied to them.

Some difference of opinion has arisen of the manner in which the matter of infection is communicated to the urethra. By some it is supposed to happen in consequence of being first absorbed from the surface of the glans, and afterwards deposited on the membrane of the urethra; as they do not think that it can pass directly into the urethra, during coition. No good reason, however, can be given for this opinion: it appears more probable that the matter at first finds access between the lips of the urethra; that it afterwards
spreads

spreads, in a gradual manner, along the passage, by mixing with the mucus, with which it meets, and that the progress which it makes will, in a great measure, depend upon the parts to which it is applied being more or less susceptible of inflammation; upon the general state of health of the patient; upon his manner of living; and perhaps upon other causes.

I do not conceive, however, that the kind of matter by which the discharge is produced has so much influence on the violence or duration of the symptoms as has been imagined. It is indeed the opinion of some that a severe and obstinate case of clap may always be traced to an infection of some peculiar degree of virulency; but this will not be found to happen with any kind of uniformity. So far as my observation goes, it is in Gonorrhœa nearly the same as in small pox. The mildness or violence of symptoms does not depend upon the matter by which the disease is produced so much as upon other circumstances. Hence the
same

woman will, under the same infection, communicate the most virulent symptoms to one person, and the mildest to another.

That much depends upon the habit of body of the patient, and upon his manner of living, will scarcely be doubted; but the following fact renders it obvious. Three gentlemen, who associated much together, and who were accustomed to live freely, returning one night from a drinking club, resolved to visit a girl of the town, and to take a friend along with them who had that night been a visitor in their society, but who usually lived with much sobriety. They all had connection with the same girl. The three associates had all the most severe claps I ever met with; while the other, who also received the infection, had the disease in the mildest form. This would not, in similar circumstances, always happen, as we sometimes find people who live with much circumspection, liable to very severe attacks of *Gonorrhœa*; but, for the
most

most part, the degree of violence of this disease has a considerable dependence on the manner of living of the patient.

The matter discharged in Gonorrhœa being very similar to what is daily observed to flow from sores in other parts, and the quantity being often very considerable, it was the prevailing opinion, till of late, that it proceeded from sores or ulcers in the urethra. We now know, however, that ulcers very seldom take place here; and, when they do, that they may be traced to some accidental cause, such as the rupture of a blood-vessel, in no degree necessarily connected with the existence of the disease. On dissection, after death, it is found, almost in every instance, that the membrane of the urethra is entire, and that the matter is produced by inflammation alone.

It had long been known, that instances were occasionally met with on dissection, where no degree of ulceration in the urethra was discovered. This, however, was considered as a singular occurrence, and that

that it never happened but where the symptoms were uncommonly mild; for at that time it was supposed, that ulceration, or a destruction of parts, was requisite for the production of matter. But we now know, that this is by no means the case, and that an inflamed surface, even where no abrasion is perceived, will produce all the varieties of matter which sores ever afford, and that different kinds of animal fluids may be converted into these, merely by being kept in certain degrees of heat.

By this the difficulty is removed, which otherwise we must have experienced in accounting for the large quantities of matter daily discharged from the urethra in *Gonorrhœa*; which, in some cases is so considerable, that nothing less than an affection of the whole extent of that canal could afford it. Now those who imagine that the matter proceeds from ulcers, have never gone so far as to say that this ever takes place: nor could it probably occur, but with such consequences as very seldom

dom ensue from Gonorrhœa. What I allude to forms an unanswerable objection to the idea of ulcers being frequent in this disease, even although no opportunities had occurred of proving it by dissection. Where the membrane of the urethra is in any point ruptured, either by the bursting of an abscess into it, or by any other cause, the most distressful consequences almost universally ensue; for the urine passing into the contiguous parts, forms swellings, which usually terminate in fistulous openings, that prove always tedious, and of uncertain event. Every practitioner knows, that even the slightest opening into the urethra is apt to terminate in this manner; so that, if the matter of Gonorrhœa proceeded from ulceration, the consequences of almost every case of Gonorrhœa, would necessarily prove much more formidable than we ever, in any instance, find them to be.

In cases of long continued Gonorrhœa, the membrane of the urethra is apt to be so relaxed, that fungous excrescences form
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in different parts of it. These not only impede the passage of the urine, but, becoming soft and tender, they at last ulcerate, and throw out very considerable quantities of matter. This, however, is never to be considered as the cause of Gonorrhœa, but merely as the effect of it. It often proceeds from mismanagement, either on the part of the patient or practitioner; and sometimes from some constitutional affection to which the patient at the time may be liable.

Instead of ulceration, we find, that in a great proportion of cases, there is merely a slight degree of inflammation, extending from the extremity of the glans to an inch or perhaps an inch and a half up the urethra. In more obstinate cases of clap, Cowper's glands, with their ducts, which terminate in the urethra, are found affected. In a third stage of the disease, the prostate gland, and contiguous parts of the urethra, are inflamed; and in the fourth, and what may be reckoned the most distressful stage of clap, the internal coat of
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the bladder is found inflamed. For the most part, the inflammation is confined to the neck of the bladder ; but I have met with instances of its being perceptible over the whole of it, and of its even extending along the ureters to the kidneys:

This inflammation, however, is chiefly obvious at first. On a long continuance of the disease, the parts affected, instead of being either inflamed, or in a state of ulceration, are of a more pale colour than natural ; the membrane of the urethra is found soft and relaxed ; and coloured mucus or matter may be pressed out from an infinite number of small points over every part of it that has been diseased.

This is precisely what happens with every membrane that has remained long under a slight degree of inflammation, particularly with the membrane of the nose and trachea. These parts often afford very considerable quantities of matter, or of mucus very much resembling matter, for a great length of time ; and yet, upon dissection, they are seldom or never found
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in a state of ulceration, the membrane being for the most part only slightly inflamed. We may here indeed remark, that the resemblance between the two diseases, *Gonorrhœa* and *Catarrh*, is, in certain stages of each of them, very remarkable. They seem both to originate from inflammation excited upon a membrane. The matter of the one is in many instances very similar to that of the other. They seem both to be local affections only; and the parts on which they are seated are, after death, found to be affected in a similar manner.

But although, in the latter stages of *Gonorrhœa*, in which chiefly opportunities occur of examining the state of the parts after death, the inflammation is found to be for the most part inconsiderable, yet, in the commencement of the disease, the parts are often highly inflamed, particularly when those about the neck of the bladder are affected. This is obvious from the symptoms; particularly from the violent pain which always takes

place, and from the antiphlogistic remedies employed for the cure of the disease.

SECTION II.

Of the Prognosis in Gonorrhœa Virulenta.

IN every disease, it is of importance for a practitioner to be able to say at what time and in what manner it will terminate. In none is information of this kind more anxiously wished for than in Gonorrhœa. The hopes and fears of patients lead them equally to wish for it; but, from various causes, and more particularly from want of attention to the exact site of the disease, the duration of Gonorrhœa has always been a matter of much uncertainty.

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I have observed above, that, on dissection, four different set of parts are found at different times to be the seat of Gonorrhœa. When the running proceeds from the extremity, or from within about an inch and a half of the extremity of the penis, as happens in perhaps nine cases out of ten, there will, for the most part, be much cause to hope that a cure will soon be obtained. In such instances, when the patient is otherwise in good health, and when he does not interrupt the operation of the necessary remedies by improper conduct, the disease will not commonly endure a fortnight. Nay, a cure in such circumstances is often obtained in two or three days: but, whenever the lower parts of the urethra are affected, particularly when the prostate gland and other parts about the neck of the bladder are diseased, the running, in almost every instance, proves obstinate. Even our most powerful remedies in other cases of clap are here doubtful in their effects. Hence

no certain opinion can be formed of the event of the disease.

When these deep-seated parts are affected, the disease proves always tedious, whatever the habit of body may be ; but it necessarily proves much more so when the constitution labours under any general affection, particularly when scrophula prevails, than when the patient is sound and healthy. Indeed a scrophulous taint existing even with the most simple case of clap, is apt to render it obstinate ; I am so much convinced of this being the case, that in every instance of clap occurring in scrophulous patients I always give a guarded prognosis of the event. Cures are sometimes indeed obtained easily, even in patients of this description ; but, for the most part, the discharge goes on for a great length of time, and resists the effect of every remedy we employ to remove it.

This uncertainty which takes place in the treatment of Gonorrhœa, and the great length of time to which the discharge,

charge, in some instances goes on, together with the many untoward and unexpected occurrences which often happen during the cure, tend altogether to render this branch of practice the most distressful of any in the province of medicine. In a great proportion of cases a cure with proper treatment is easily and speedily obtained; but every candid practitioner will admit that cases often occur in which the discharge continues obstinate for a great length of time, even under the use of the most powerful remedies with which we are acquainted. But, by distinguishing between one stage of the disease and another, and thus giving an opinion to patients of the probable event of it, practitioners would avoid a good deal of embarrassment which they often experience, from giving so indiscriminately as they commonly do, a favourable prognosis at the commencement of every case of clap.

In forming a prognosis, it ought always to be kept in view, that however

mild the symptoms may be at first, they may very quickly and unexpectedly become severe, by the disease proceeding from one part of the urethra to another, or even by the inflammation in the part which was at first affected becoming more severe. This arises from various causes, and often from circumstances which it is not in the power of practitioners to prevent. It sometimes occurs, indeed, from the use of improper remedies; particularly from acrid injections being used with too much freedom; but it happens much more frequently from other causes, particularly from the tendency which inflammation in one part of a membrane has to spread itself over the whole of it, and to the misconduct of patients, who, instead of living as they ought to do, very commonly proceed, during the cure, in the same course of riot and debauchery by which they were at first exposed to infection. Some patients, even under such circumstances, will no doubt get well; but there is not a more undoubted fact than this,

this, that the cure of the disease is for the most part both difficult and uncertain where the patient lives in a riotous and intemperate manner.

SECTION III.

General Observations on the Cure of Gonorrhœa Virulenta.

Gonorrhœa, as I have observed above, has, till of late, been very generally considered as depending upon an affection of the constitution; or at least the discharge has been supposed to be of such a nature as at all times to affect the constitution, and therefore that a cure could not be obtained but by the use of remedies which operate upon the system at large.

For a considerable time mercury was chiefly relied upon. It was employed on the supposition of Gonorrhœa being a

symptom of Lues Venerea; but experience having shewn that no advantage was derived from mercury by itself, other remedies were employed along with it. These consisted chiefly of demulcents, evacuants, and astringents.

By a plentiful use of mucilagenous drinks, and other demulcents, it was meant to sheath the bladder and urethra more effectually from the acrimony of the urine, and at the same time to render the urine itself less acrid. Purgatives were employed for the purpose of carrying off the morbid matter of the disease, and nitre and other remedies were given with a similar intention; and lastly, as the running was seldom lessened by the use of any of these, but, on the contrary, being frequently increased, bark, astringent balsams, and other corroborants, were prescribed for putting a stop to it. In some cases mercury was continued during the whole course; in others it was left off at the time of entering upon the use of astringents.

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The practice of physic when this prevailed being in most points highly improved, we are astonished to find such deficiency as this evinces, in the treatment of a disease which necessarily fell under daily observation. If patients had been left to themselves, without any interference on the part of practitioners, the disease would often, in the course of time, have disappeared without any injury being done to the constitution; for we know that a simple clap will, in most instances, dry up whether any remedies be employed or not; but, by the liberal use of strong purgatives, and especially when this was conjoined with a low diet and a course of mercury, the constitution was so much debilitated that this alone rendered almost every case that occurred exceedingly obstinate: hence Gonorrhœa was considered as the most distressful as well as one of the most dangerous diseases to which the human species was liable. Lues Venerea was, for the most part, easily cured by mercury; but no advantage

vantage was derived from this remedy in Gonorrhœa: the disease usually proved exceedingly obstinate, and was very apt to terminate either in gleet or in obstructions of the urethra.

It soon appeared to practitioners of observation, that the medicines employed in Gonorrhœa, instead of proving useful, rather did harm; but the period was not yet arrived in which a more effectual remedy was to be proposed. Some, however, went so far as to say that medicines of every kind might be avoided, as they had found, from experience, that the disease went off both more easily and more quickly when left to itself than it ever did with the remedies at that time in general use. A low diet, mercury, and evacuants of different kinds, did much harm, as we have already observed, by inducing such a degree of debility and relaxation as materially affected the constitution; and the drastic purgatives, of which large dozes were given daily, proved highly prejudicial, by the irritation which they excited.

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In certain stages of clap a strong purgative never fails to increase the pain ; to excite a more frequent desire to make water ; and to increase the discharge : nay, I have known various instances of a return of all the symptoms of Gonorrhœa being induced by the operation of a brisk purgative, long after the patient considered his cure as complete.

We need not therefore be surpris'd at the proposal of laying all such remedies as these aside ; and it must be admitted that a cure will often take place, that is, the running would disappear, together with all the symptoms which attend it, without the aid of medicine. This would frequently happen where the disease was mild ; where the patient was possessed of a healthy constitution ; and where the running was not kept up by any impropriety on the part of the patient. The running would disappear here, as happens in corryza and other instances of matter proceeding from inflamed surfaces, whether any remedies should be employed

employed or not: but this would seldom or never happen where the symptoms were severe, nor where the patient did not live in every respect as he ought to do. In all such cases the cure would prove tedious and uncertain, and the constitution would frequently be ruined, in the attempt.

When the mode of cure we have mentioned was proposed, an opinion prevailed that the discharge was kept up by some general affection of the constitution, and that nothing therefore could be so safe or so proper as to allow it to run as long as any part of the morbid matter by which it was produced continued. It was at that time admitted by all, that Gonorrhœa was of the same nature with Lues Venerea. Chancres, as well as all other venereal sores, were kept open till cures were obtained by the internal use of mercury. An erroneous idea prevailed of some advantage being derived from the discharge which they produced; and hence, even by those who saw clearly that no benefit was
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obtained from mercury in Gonorrhœa, it was still considered as the best practice to allow the disease, as they said, to discharge itself in this manner.

Even granting that the matter of Gonorrhœa were the same with that of Lues Venerea, there is no cause to imagine that any advantage would ensue from this practice: but we now have no reason to doubt of the two diseases being perfectly different. A practice, therefore, which at one period might have been judged proper in one disease, would now be inapplicable in the other; and hence it has, very generally, been laid aside, although not yet given up by some individuals.

From the observations we had occasion to make in the last chapter, as well as from other circumstances, few will now doubt that the matter in Gonorrhœa proceeding in most instances from an inflamed state of the membrane of the urethra and contiguous parts, gives a local affection only, without being productive of any general disease of the constitution.

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From this view of the subject, it is obvious that no great advantage is to be expected from remedies applied to the system at large, and that a cure is to be looked for from the use of local remedies only. In the treatment of a simple sore, of a cut, a burn, or excoriations from any cause whatever, we would not surely expect to succeed by mercury, purgatives, or any remedies directed to the constitution. In all such affections we trust to local remedies, unless the presence of fever, or some other general affection, render other remedies necessary. For the same reason we ought, in Gonorrhœa, to depend entirely upon such remedies as act chiefly upon the parts affected; no others being necessary if it be not occasional blood-letting, and other evacuations, and these only where fever, plethora, or much inflammation take place.

In local affections of other parts our remedies are easily and directly applied: in the urethra some nicety and attention is necessary, not only in the mode of applying

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ing them to the diseased parts, but in judging of the period of the disease, or rather of the state of the parts to which they are to be applied: in other situations these circumstances fall directly under view, and we judge from appearances of the propriety of applying one remedy or another. In the urethra we are directed entirely by the symptoms, and we judge from these of the remedies to be employed, as well as of the parts to which they are to be applied being in a fit state for receiving them or not.

If the parts affected in Gonorrhœa were always the same no difficulty would occur in the application of our remedies; but, although the matter in the commencement of the disease proceeds in perhaps every instance from inflammation, yet, in some, parts are affected with inflammation, to which it would be improper and even hazardous to apply the same remedies which in a great proportion of cases are used with much safety and advantage.

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We shall afterwards have occasion to shew that, in certain circumstances of Gonorrhœa, bougies may be used with much benefit; but, for the most part, we depend entirely upon injections, and chiefly upon such as are of a drying, astringent nature. Now it is obvious, that although we may with safety apply an astringent solution to an inflamed surface, as happens daily where the membrane of the urethra only is affected, yet that much risk may ensue from the same solution being applied to the ducts of inflamed glands: in the one case the discharge produced by the inflammation will be lessened and soon removed, and the inflammation itself will subside, while, in the other, by a sudden stop being put to the discharge of a gland already in a state of increased irritability, more inflammation will be excited, the parts affected will become swelled and painful, and at last the discharge will burst forth with redoubled violence.

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That this frequently happens in the course of business every practitioner of candour will admit: nay, there are few patients who have been liable to different attacks of this discharge, who have not met with it in some degree. For a day or two the running will often disappear, and they consider the cure as complete, when after some degree of tension and uneasiness along the greatest part of the penis, particularly in the perineum, the discharge recurs as before, with every appearance of a recent infection.

As there are many who condemn the use of injections in Gonorrhœa, it is alleged that this is one of the inconveniences which they produce; but we shall presently have occasion to shew that this is by no means the case, and that it proceeds entirely from a misapplication of the remedy; from using it in a state of the disease for which it is improper; and not from the remedy itself being of a hazardous nature.

This leads us to revert to the necessity there is for distinguishing between one

state of Gonorrhœa and another. In the description of the symptoms, I remarked that they are evidently distinguishable into four sets, indicating four states or stages of the disease; and as it is a point of the first importance in practice to have these different states clearly marked, we shall now proceed to treat of them in separate sections.

SECTION IV.

Of the First Stage of Gonorrhœa.

IN the first stage of Gonorrhœa the running is never accompanied with violent symptoms. The extremity of the urethra becomes red, full, and somewhat prominent. The glans becomes tender and irritable, and ardor urinæ takes place in a greater or lesser degree, according to the extent of the inflammation. For the most part the heat of urine is inconsiderable; but
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in some instances, even in this stage of the disease, it is so severe as to excite a good deal of distress. Chordee sometimes occurs, but seldom in any considerable degree.

In the history of the disease we have seen, that in this stage of it the membrane of the urethra alone is affected, that is, the inflammation by which the discharge is produced has not extended to any other part.

We judge that this is the case when these symptoms only occur which have just been enumerated; when no glandular swellings are discovered along the course of the urethra, and particularly when the running proceeds entirely from within an inch, or an inch and a half of the extremity of that canal.

This circumstance of the discharge in *Gonorrhœa* proceeding from the extremity of the urethra, is at all times a proof of the inflammation not having advanced farther than to constitute what I have denominated the first stage of the disease. No glandular swellings are ever discovered

while the running proceeds from these parts ; and on dissection after death, the membrane of the urethra alone is found inflamed : but in some instances the discharge proceeds even from the superior parts of the urethra, while none of the contiguous glands are affected. This I consider as constituting the first stage of the disease, equally as when the extremity of the urethra is alone affected. The symptoms are not more violent in the one than in the other, and the method of cure is the same in both. It must, however, be admitted, that we do not frequently meet with this ; for where the upper part of the urethra is affected, the inflammation is very apt to spread to the contiguous glands, and thus terminates in the second, third, or, perhaps, fourth stage of the disease.

We ascertain the place in the urethra, from whence matter is discharged, not merely from the height to which the pain or uneasiness with which it may be accompanied extends, for this proves often an equivocal mark of distinction, but
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from compressing the passage at any given spot, and pressing out all the matter between it and the end of the urethra. If, on removing the pressure, more can be brought down, we are sure that it must come from a greater height, and by proceeding in a gradual manner upwards we may thus, with very little attention, discover almost the exact spot from whence the discharge proceeds. It will afterwards appear that our being able to do so is of importance in conducting the cure.

From what has been said it will appear, that in this stage of the disease the running proceeds entirely from inflammation of the membrane of the urethra, without any affection of the glands which open into it; and in the removal of this the cure entirely consists.

Where the inflammation is considerable, as we judge to be the case when the ardor urinæ is severe, and especially when it occurs in a very full habit of body, it may be proper to prescribe blood-letting, a dose or two of any gentle laxative, and a low,

cooling diet. At the same time violent exercise of every kind should be avoided, particularly riding on horseback.

Inflammation, however, in this state, is seldom so considerable as to render blood-letting necessary: in ordinary cases we now trust to the use of injections alone, and in all periods of the discharge I use them with equal freedom. Even where blood-letting, and a strict attention to an antiphlogistic regimen is necessary, I have never any difficulty in beginning immediately to the use of injections.

Those who are not in the daily practice of using injections, are afraid of prescribing them so generally as they ought to do: some, indeed, never employ them in any case, from the prejudice being strong which still prevails against them among almost all the older practitioners, while others admit that they may be used with safety and advantage, in the latter period of the disease, but never in the beginning, or while the inflammation continues in any degree severe.

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This, however, is a timidity that will soon vanish with all who venture upon a more general use of them. They will find that injections, of a sufficient degree of astringency for removing the discharge, may in this state of *Gonorrhœa* be employed with perfect safety, even in the commencement of the disease, and whether the inflammation which takes place be mild or severe.

An idea is still entertained by many, that the running should not be stopped till some of the virulency by which it was produced is carried off; and hence they object, as we have just observed, to the early use of injections. But, as we have seen that *Gonorrhœa* is a local affection, and as we know that in other parts of the body local inflammation may at all times be removed with safety, nay, that it is the best practice to attempt it, we might from this alone infer, that it would be equally proper here. But independent of this, I can with confidence assert, and all who employ injections generally will do so, that

they may in this stage of Gonorrhœa be used at all times, and with more certainty of proving successful the more early they are applied. Of this I am so clearly convinced, that I would advise all who have it in their power, to employ injections instantly on the discharge taking place. They commonly, indeed, prove successful at whatever period they are used ; but I have uniformly found that they act more quickly in the commencement of the disease than in the later stages of it.

While practitioners differ in opinion respecting the most proper period of Gonorrhœa for using injections, they likewise differ in their ideas of the kinds of these remedies best calculated for the periods in which they are employed. In the commencement of Gonorrhœa, and at all times when much pain takes place, it is the opinion of many that emollient injections only ought to be used, such as warm oil, emulsions of almonds, infusions of althea, and lintseed : but in this there appears to be some mistake ; and I can decidedly say so from having
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ing often experienced the inefficacy of the practice.

On first entering upon business, I found it the opinion of many who used injections with freedom, that those of the emollient kind ought alone to be advised while much heat of urine, or any considerable degree of inflammation continued. These, it was imagined, would sheath and protect the parts from the acrimony of the urine, and on the inflammation subsiding, they conceived that injections of an astringent nature might be used with more safety. The opinion was plausible, and supported by some of our best practitioners; I was therefore induced, along with others, to go into it, but it soon appeared that no advantage was to be derived from it: on the contrary, it was evidently the cause of much distress, by rendering the cure of *Gonorrhœa* much more tedious than it otherwise might have been; for injections of the emollient kind never tend to shorten the continuance of the discharge, and often render it more fixed and permanent,

ment, by relaxing the parts from whence it proceeds.

Neither are injections of this description necessary as a preparative to those of the astringent kind : in this conviction I have for many years past laid them altogether aside, and during this period have used none but such as are evidently astringent ; and although I employ them with all manner of freedom, I have never perceived any bad effects arise from them.

In this state of Gonorrhœa injections of the astringent kind may be used with safety and advantage, from the very commencement of the discharge, as well as at any period of the disease, whatever the degree of inflammation may be. Instead of increasing the inflammation, they tend, when of a proper strength, to lessen it ; they relieve more immediately than any other remedy, the ardor urinæ ; and they commonly lessen or remove the discharge in a very short space of time.

In all cases, therefore, of this kind, where we suppose the disease to proceed
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entirely from the membrane of the urethra, I pay no regard to the continuance of the running; the patient is immediately put upon the use of injections, and no harm ever ensues from it.

There is only one symptom which, in this stage of clap, precludes the immediate use of injections, viz. pain and swelling of one or of both testes: a perseverance in the use of injections during the continuance of this symptom very commonly does harm, and ought not therefore to be advised; not that they tend to increase the inflammation, even of the testis, but by removing the discharge from the urethra, they deprive us, as we shall afterwards see, of one of the most effectual remedies for a swelled testicle, proceeding from *Gonorrhœa*.

A variety of astringent injections are employed by practitioners, but some proving more effectual than others, an investigation of this part of our subject is thereby rendered necessary.

Almost

Almost any astringent injection will lessen the discharge. Port wine, and claret, duly diluted, sometimes answer. I have often succeeded with a tea-spoonful of brandy added to half an ounce of rose water: nay, rose water itself, or even cold water directly from the spring, will often give a stop to the discharge; but, for the most part, the effects of these are only temporary. In slight affections, indeed, they sometimes complete the cure, but in general we are under the necessity of employing astringents of a more powerful kind.

Among the first injections used in Gonorrhœa, mercury, in one form or another, was a constant ingredient. It was not, however, employed as an astringent; for at that period the use of astringents of any kind would have been considered as hazardous. Being applied in this manner directly to the seat of the disease, it was supposed that it might act as a specific in the cure of it. But although I have given full and complete trials to injections of the mercurial kind, and in every variety of form,

form, I have not, in any instance, found them to prove more effectual than other astringents. In order to ascertain the point to which I allude, with as much certainty as possible, I have repeatedly made it the subject of experiment. Of different patients in *Gonorrhœa*, all nearly distressed with similar symptoms, some have been made to employ a mixture of calomel with mucilage and water; others have used quicksilver dissolved in mucilage, while some have at the same time been using injections in which mercury did not enter as an ingredient.

I admit that in most of these instances mercury proved serviceable, but by no means in such a degree as many of the articles with which it was put, upon this comparative trial. There is no cause, therefore, to imagine that it acts as a specific in the cure of clap.

To prevent interruption in this part of the work, formulæ will be given in the Appendix to this volume, of all the preparations I wish to recommend. Of mercurial

rial astringent injections, the prescriptions No. 1, 2, and 3, are perhaps the safest and best that can be used.

Calomel used in injections seems to act in a similar manner with lapis calaminaris, armenian bole, and other astringent earths; not by any specific virtues with which they are endowed, but by restoring tone to parts weakened by the disease. It is in this manner, I conclude, that all of these articles act in the cure of Gonorrhœa; and in cases that are not particularly obstinate, they very commonly prove effectual. Lapis calaminaris, or tutia finely levigated, suspended in thin mucilage, makes a very safe and useful injection. No. 4th and 5th are formulæ of these; and No. 6 is a prescription of a gentleman retired from business, who, at one period, was in very extensive practice in London, and who in the course of much experience in this particular branch, gave the preference to articles of this kind over all others that he ever employed.

These

These earths possess one important advantage for this purpose: they never do harm, in whatever quantity they are used. If levigated with sufficient care and attention, they may be used in any quantity that the liquid in which they are conveyed can be made to suspend.

Allum dissolved in water makes a safe and useful injection. It proves equally safe, and still more powerful, when conjoined with a decoction of oak bark, or an infusion of galls, for which prescriptions are given No. 7th 8th, and 9th.

Kino, an astringent lately much used in *Diarrhœa*, proves also an useful ingredient in injections for *Gonorrhœa*. I have in various cases found it prove successful where other articles had failed, and I have not observed that it ever does harm. As it is not very soluble in water it becomes necessary to suspend it when in fine powder, by means of mucilage, as is prescribed No. 10th and 11th.

Opium proves often an useful ingredient in injections of this kind; and as it
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is equally serviceable whether much pain takes place or not, I conclude that it does not act so much as a sedative as it does as an astringent. No. 12th and 13th are formulæ of injections with opium.

Some of the astringent balsams, properly combined with water, make a good variety of injection for Gonorrhœa, particularly the balsamum canadense, and balsamum copaiba, as in No. 13th, and 14th.

Lead, in various forms, proves highly serviceable in these injections. Cerusse suspended in mucilage and water is often employed with advantage; but acetum lythargyri, and saccharum saturni dissolved in water are most to be depended on. Formulæ of these are given in No. 15th, 16th, and 17th.

Of all the astringent injections, however, which I have used, none prove so powerful as white vitriol dissolved in water. In the quantity of a grain and half to an ounce of water, it seldom creates much irritation, and it does not often fail in this variety of the disease, in which alone injections

jections of any kind ever prove materially useful. No. 18th is the form of injection, which, in the common occurrences of daily practice, I am in the habit of using; and No. 19th is a combination of vitriol and acetum lithargyri, which, in a few cases, I have found to answer better than either of these articles separately.

Many other astringents might be enumerated, from which very useful injections might be prepared, but the formulæ which I have given contain the most powerful of any with which we are yet acquainted. None of them will at all times prove successful; for even in this the most simple variety of the disease, the most active remedies will in some instances fail: but I can from much experience in this branch of practice assert, that it will seldom happen where the injection is properly managed and duly persisted in.

The vitriolic injection, No. 19, I have mentioned as the most useful formula of any; but it will sometimes happen that a case will readily yield to others which has

long resisted this. When we do not, therefore, soon succeed with one injection, we ought, without loss of time, to have recourse to others, by which our purpose will be more easily accomplished than by continuing to employ the same for any length of time together.

In all these injections the different ingredients are in such proportions as best suit the general course of business. This was a point of much importance to ascertain, and so far as my observation goes, I have done so; but cases will, no doubt, occur, from time to time, in which some variety of strength is necessary. All injections of this kind should be of such a strength as to excite some degree of irritation in the urethra, but by no means so strong as to create much pain: hence, where the preparations I have mentioned do not answer the purpose, they should be made stronger; and when of such a strength as to excite severe pain, they should be more diluted.

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This, I may remark, is an object requiring much attention, for while it is obvious that injections must do harm when their strength is more than it ought to be, it is equally certain that little or no advantage will be derived from them when they are too weak. I have known a cure accomplished in three days, merely by making an injection of a sufficient strength, where the disease had previously gone on for two or three months, from want of attention to this point. I consider this, indeed, as one of the most important points in the treatment of *Gonorrhœa*, nor does any thing distinguish the practitioner of experience with such certainty, as his being able to adapt the strength of the injections which he employs to the particular circumstances of every case which falls under his management.

In the application of injections there are two circumstances which more particularly require attention, viz. the manner of throwing them up, and the frequency of using them.

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They may be thrown up either with a small bag of *refina elastica*, fitted with a pipe, or with a common small syringe: whether the bag or syringe be used, the pipe should be perfectly smooth, of a conical form, not above half an inch in length, and the cone of such a thickness near to the root, as not to allow the pipe to pass above a quarter of an inch into the urethra.

The bag or syringe being filled with the injection, and the patient seated with his breech over the side of a chair, so as to prevent the perineum from being pressed upon, the pipe, when well oiled, should be inserted into the urethra, as far as it will go, with the right hand, while, with the left, he grasps the penis, and pulls it forward upon the pipe. He must now throw the injection up in such a manner that it may reach the farthest part of the urethra that is affected, but not with such force as to excite pain.

When the discharge proceeds from near the extremity of the penis, very little force

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is required for this purpose ; but when the upper part of the urethra is affected, if the injection be not thrown up with some degree of firmness, it will not reach the seat of the disease, and hence no advantage will be derived from it. Previous, therefore, to the use of injections, the part of the urethra, whence the discharge proceeds, should be ascertained, and it can be easily done in the manner we have mentioned above.

In using injections it is judged proper by some to desire the patient to prevent them from passing farther in the urethra than the seat of the disease ; lest, by forcing some of the matter along with the liquid, the infection should be carried to parts which otherwise might not have been injured. For this purpose the patient must compress the urethra with the middle finger of his left-hand, at that point to which it is meant the injection should go ; while the syringe or elastic bag is employed for throwing it up in the other. But although there is no necessity

for throwing injections farther than the seat of the disease, there is no cause for this anxiety in preventing them. It does not appear, that in this manner, the infection is ever communicated from one part of the urethra to another; at least I have never met with an instance of it, and I have seldom pointed out this to my patients as a necessary piece of attention. While it does not, therefore, answer any good purpose, it certainly renders it more difficult for the patient to throw the injection properly up, as he cannot both make pressure upon the upper part of the urethra, and, at the same time manage the syringe with that exactness which it requires.

The point, however, of most importance in the use of injections is, the frequency with which they should be thrown up; it is not enough that we discover a composition that will accomplish a cure, if we do not use it with that frequency which the nature of the disease requires. In common practice the patient is desired to inject the liquid two or three times a day: this, if
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the injection be of a proper strength, will in course of time effect a cure ; but I am perfectly convinced, from much attention to the subject, that cures would be much more speedily obtained were injections to be more frequently thrown up. Instead of two or three times a day, I cause them be used seven, eight, or ten times daily ; by which the cure, instead of being protracted for several weeks, is often compleated in as many days.

This, I must observe, is a point of such importance in the cure of *Gonorrhœa*, that nothing can compensate the neglect of it. The inefficacy of injections is frequently held forth as one material objection to them, but, for the most part, their failure will be found to depend, in a great measure, upon this circumstance. Patients ought, therefore, to be urged to use them, at least as frequently as I have mentioned. When indeed the discharge lessens, or disappears entirely, there is no necessity for using injections so frequently ; but while it continues undiminished, the more fre-

quently the remedy is applied to the parts from whence it proceeds, the more quickly will it be removed.

On laying injections aside, even after the running has disappeared entirely, and when there is therefore cause to suppose that a cure is obtained, the discharge often returns with equal severity as at first, either from excess in wine, or over exertion in bodily exercise. In such circumstances the injections must again be employed, and used with as much frequency as before, care being taken not to leave them off till some time after the running has again disappeared.

When the discharge returns repeatedly it is apt to weaken and relax the parts so much, that this alone comes at last to constitute a new disease, forming a variety of what in general is termed gleet. This, however, requires remedies of a different kind, and will fall to be considered in a different chapter.

It will be remarked that I have only slightly taken notice of any other remedies

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in the treatment of Gonorrhœa: I have purposely done so, from full conviction of the inefficacy of all remedies that are not immediately applied to the urethra, and from finding that a proper use of injections never fails to prove successful, where a cure by any means can be obtained.

Where much pain and inflammation takes place, I have observed above that some advantage may be obtained from blood-letting, and a strict attention to an antiphlogistic regimen. I think it right, however, to say, that few cases occur in which this becomes necessary. A patient under Gonorrhœa should live moderately, but by no means upon such low diet as in former times was prescribed in such cases. He ought to live in such a manner as may prevent the inflammatory symptoms from becoming severe, but not so low as to run any risk of inducing relaxation or debility.

The circumstances which most particularly require attention are, abstinence from all manner of connection with women,
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and from bodily exertion, such as much walking and riding on horseback, which more especially affects the parts concerned in this disease.

In the treatment of Gonorrhœa, where no injections are used, where the disease is either left entirely to nature, or treated with demulcents and purgatives, a regular progress towards amendment is, for the most part, observed in the discharge. The matter from being thin, and of a greenish hue, or perhaps of a red colour from being tinged with blood, becomes of a thicker consistence, tough, ropy, and of a white or yellow colour: but where injections are employed this seldom happens. This natural process is thereby interrupted, and a cure often takes place without any change being perceived in the colour or consistence of the discharge.

There are some symptoms which occasionally take place in every stage of Gonorrhœa, and which, it might be expected, ought to have been more particularly noticed

noticed here, such as chordee, and evacuation of blood from the urethra. But these symptoms being attended with circumstances requiring a peculiarity of treatment, quite unapplicable in the ordinary state of *Gonorrhœa*, and being all of them highly important in their nature, a separate section will be allotted for the consideration of each of them. We shall now, therefore, proceed to consider the second stage of the disease.

SECTION V.

Of the Second Stage of Gonorrhœa.

IN this stage of the disease all the symptoms are more violent than in the first. The heat of urine is much more severe; the whole body of the penis becomes tender,

der, and even painful; and chordee takes place to a very distressful degree. The matter discharged from the urethra is either of an ugly green colour, or deeply tinged with blood, and commonly very fœtid. It is found, on examination, to proceed from the more superior parts of the urethra, generally from about the middle of the perineum, where the patient complains of a smart pain upon pressure, and where one or more small tumors are often perceptible, produced by the inflammation having extended to Cowper's glands.

Although the symptoms of the first stage of Gonorrhœa are commonly very distinctly marked, yet they frequently proceed to, and terminate in one of the other stages of the disease, particularly in this which we are now considering. This happens from the inflammation extending along the urethra, either from the matter producing the disease being more than usually acrimonious; from the effect of improper management on the part of the patient; from the imprudent use of irritating or
very

very astringent injections ; or from the patient being of a habit of body rendering him particularly liable to be acted upon by causes apt to excite inflammation.

I conclude that it happens most frequently from the first and last of these causes, or, perhaps, from a combination of them both ; as in a great proportion of cases of this second state of the disease we find it taking place almost from the first day on which the running appeared. It must, no doubt, have fallen under the observation of every practitioner that this, as well as the third and fourth stages of Gonorrhœa, are often induced by the patient living in a state of riot and debauchery ; and, in some cases, by the immoderate use of irritating injections. But although these are circumstances which in every case of Gonorrhœa ought to be rigidly guarded against, from their tending to excite one of the most distressful complaints to which the human species is liable ; yet I am convinced, from what has been mentioned, that the worst states of
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the disease will frequently occur, notwithstanding of all that can be done either on the part of the patient or surgeon to prevent them.

As the practice in this state of Gonorrhœa is materially different from what we have recommended in the first stage of it, the utmost attention becomes necessary in distinguishing between them. In the first, the matter is, for the most part, discharged from within an inch and half of the extremity of the penis; and where the disease does extend farther up the urethra, although the ardor urinæ is sometimes considerable, yet the pain is never so severe as that which arises from the inflammation in the second stage of the disease. In this last, the whole body of the penis, as we have observed above, is tender and painful; the chordee which takes place is highly distressful, and one or more inequalities, accompanied with pain on pressure, are discovered in the perineum: whereas, in the former, any chordee which occurs is for the most part very moderate.

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The pain is inconsiderable at all times when the patient is not passing water, and no hardness or inequalities are perceived in the perineum.

It is proper to remark, that even in the second stage of the disease, these glandular tumefactions in the perineum are not always at first obvious; but upon pressure with the fingers they are easily discovered, even on their first commencement; and in the more advanced stages of the disease they become perceptible, both to the touch and to the eye. Whenever chordee occurs in a severe degree, the whole penis acquires a firmness and tension, particularly where it runs along the perineum. This, however, is very different from the glandular affections to which I allude: the one is a diffused swelling, extending over the whole, or a considerable part of the penis; it does not continue fixed or permanent, and seems to depend upon a morbid irritability in the muscles of the penis, by which they are easily excited to violent and unequal contractions. The others
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are, at first, small, circumscribed swellings, painful to the touch, which do not rise and fall speedily, and which remain more or less permanent according as the symptoms with which they are connected are more or less violent.

These swellings proceed, as I have already observed, from an inflamed state of Cowper's glands, induced by the inflammation extending along their ducts, which terminate in the urethra, to the glands themselves.

Inflammation here, when it comes to a height, in a manner similar to what ensues from it in other parts, is very apt to terminate in suppuration; and as the formation of matter in the substance of these glands is apt to excite the most distressful consequences, nothing should be omitted that can tend to prevent it. When matter forms in them, if it be not immediately discharged by an external opening, it is very apt to burst into the urethra, and to produce runnings, which, in some cases, do

do not terminate but with the life of the patient.

On the first approach, therefore, of this second stage of Gonorrhoea, all our endeavours should be employed to remove or lessen the inflammation. If the patient is plethoric he should lose a considerable quantity of blood with the lancet, and ten or a dozen of leeches should be applied to the pained part. Whatever his habit of body may be, the application of leeches should not be omitted, and they ought to be repeated once and again, according to their effects, and to the degree of inflammation and swelling which take place; saturnine poultices should be applied over the part affected; the bowels should be kept open with gentle laxatives, and the patient should be put upon a low, cooling diet.

If, either by the violence of the inflammation, or by an imprudent use of astringent injections, a stop has been put to the discharge, much advantage will be derived from our soliciting a return of it. This,

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however, must not be done with applications of an irritating nature, such as bougies, and stimulating injections, as some have advised, but it may be attempted with safety by throwing up, from time to time, injections of warm oil and other emollients, such as warm decoctions of lintseed and althea.

But although we find from experience that much harm is done by the application of stimulants directly to the urethra, we know that they may be applied to the skin both with safety and advantage. Thus, when the swelling does not soon lessen by blood-letting, and the other remedies mentioned above, I have, in different instances, derived advantage from the application of blisters to the parts affected, and by covering the bites of the leeches with adhesive plaster; this practice may be adopted even the day after they have been applied. The blister should be made to cover the whole perineum.

When the remedies we have advised are timely and properly applied they will not
often

often fail to remove the inflammation ; but when this is not accomplished, and when the swelling or swellings proceed to a state of suppuration, nature should be as much as possible assisted by a frequent and free use of emollient poultices and fomentations, and as soon as a fluctuation of matter is discovered, it ought to be discharged by an opening made the full length of the tumor. In this manner a sore will be produced that will be difficult to heal ; but if the habit of body be sound, a cure will be obtained at last, and there is no other method with which I am acquainted that will so readily prevent the matter from bursting into the urethra.

When this unfortunate circumstance takes place, of matter collected in one or more of these glands, finding access to the urethra, scarcely any advantage is to be derived from art in the treatment of it. Injections, as we remarked in the last section, instead of proving serviceable, rather do harm. They cannot reach the cavity of the gland, where alone they might

prove useful, and by preventing for a time that free discharge of matter, which, in every abscess is desirable, they cause it to collect, and alternately burst out, in greater quantities than before. r

When the cause of such an occurrence is not suspected, both the patient and practitioner are apt to imagine that it proceeds from the fault of the injection: every variety of the remedy is therefore employed, but nearly the same effect results from all of them, and the patient, after being teased and perplexed for a great length of time, finds himself in no degree better than he was at first.

By some practitioners a course of mercury has been advised in this state of the disease, and particularly frictions with mercurial ointment on the perineum; but although I have often seen the practice fairly and completely tried, I never knew any advantage derived from it. Neither does mercury prove useful in the sores which ensue from opening abscesses in the perineum, proceeding from Gonorrhœa.

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On the idea of these sores being of the same nature with such as succeed to buboes in Lues Venerea, mercury is commonly prescribed; but although I have known it repeatedly used, not only for the cure of these sores, but for the discussion of the previous tumefaction of the glands, I never knew any evident benefit derived from it.

All that in such circumstances can with propriety be done is, to cause the patient live in such a manner as will most effectually brace his constitution; his diet ought to be of a nourishing kind; cold bathing, particularly in the sea, proves sometimes useful, and, in some instances, Jesuit's bark, in large quantities, is given with advantage.

In no period of this stage of Gonorrhœa are injections admissible, and I suspect that the discredit into which they have fallen with many is owing to their being employed promiscuously in every state of the complaint. We have just seen that they cannot be used with any prospect of success, when suppuration has actually taken

place, and a very little attention will make it appear that they ought not to be advised during the inflammatory state of the complaint. While the parts are inflamed, instead of endeavouring to remove the discharge, we ought rather to try to promote it. Nothing tends with such certainty to moderate all the symptoms; and I have repeatedly observed that they are all rendered much more severe by whatever tends, in any degree, to give a check to the running. It is proper, therefore, that the younger part of the profession be put strictly on their guard against the use of injections in every period of this stage of Gonorrhœa; a practice which, in the first stage of the disease, is the only remedy, as we have seen, upon which any dependence ought to be placed, but which in this is evidently fraught with danger to the patient, and therefore with discredit to those who advise it.

Besides the glandular abscesses of these parts, which we have just described, collections of matter are apt to occur in this state

state of the disease, not only in the cellular substance of the perineum, but in the corpus cavernosum of the penis, as well as in the corpus spongiosum urethræ. The treatment of these, however, ought to be so exactly what we have pointed out for the others, that nothing farther need be said upon it. To prevent, as much as possible, the risk of such collections bursting into the urethra, the matter should be discharged by a free opening the whole length of the tumor, as soon as it is found to be completely formed.

When collections of matter in these parts, whether seated in Cowper's glands, or in the contiguous soft parts, terminate, as they sometimes do, in external openings, at the same time that a communication is formed with the urethra, the urine escapes at the fore, and thus another disease is produced, termed a sinus, or fistula in perineo. This falls to be treated like sinuses in every other part: the seat of the abscess must be laid open from one end to the other, and by enlarging the

opening in the urethra, if the patient be otherwise in sound health, a cure will, for the most part, be obtained, by endeavouring to heal the sore from the bottom in the usual way*.

It may be alledged, if this proves successful where the matter has already formed an opening, both inwardly and outwardly, for itself, that a similar practice should be adopted where the abscess has only burst into the urethra. That a free incision should be made into it, and a cure attempted in the manner we have already advised.

Where the opening into the urethra is such as to admit the urine to pass into the abscess, the practice to which I allude ought undoubtedly to be adopted, for no other will prove successful, and the patient must remain in a state of great distress and misery while this continues; but while the external teguments remain entire, and while the urine does not find access to the

* V. System of Surgery, chap. xv.

abscess,

abscess, no attempt of this kind ought to be made. However inconvenient the discharge of matter from the urethra may be, and however long it may continue, the patient ought rather to submit to it than to the uncertain event of a fistulous opening, which always proves tedious and distressful, with whatever judgment the disease may be afterwards treated.

SECTION VI.

Of the Third Stage of Gonorrhœa Virulenta.

IN this stage of Gonorrhœa, along with ardor urinæ, and the other ordinary symptoms of the disease, the patient complains of a severe fixed pain in the upper part of the perineum, accompanied with a sensation of fulness, and tension in all the parts contiguous to the anus. The desire to void urine is more frequent than in either

either of the two preceding states, and it is commonly passed with much pain and difficulty; often drop by drop. Tenesmus, or a painful and frequent desire to go to stool, often takes place, and, in some instances, to such a distressful height, as adds greatly to the misery of the patient.

Even in the commencement of the disease the pain in making water is in some cases so severe as to excite heat and other symptoms of fever; and, in the more advanced stages of it, I have known the fever rise to a very alarming height. This state of Gonorrhœa, in some instances, proceeds from the inflammation spreading backward in a slow, gradual manner, from the point of the penis, which we have shewn to be the seat of the first stage of the disease, but more frequently it takes place suddenly either from the imprudent use of injections, from the patient being in a riotous course of life, or from his being exposed to violent exercise, either on foot or on horseback.

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On examining the parts affected, the penis is, for the most part, in a state of tenderness and irritability, nearly, indeed, as we have described it to be in the second stage of this disorder; but, together with this, on compressing the parts about the end of the rectum a sense of pain arises, which is never experienced in either of the states already described, and on introducing the finger into the anus, the prostate gland is found considerably swelled, and in such a state of irritability that it can scarcely bear to be touched.

Even the slightest degree of this affection excites much uneasiness, and the desire to pass water seldom ceases for above a few minutes together; but when the disease has been of long duration, the prostate gland, which nearly surrounds the urethra, or which rather appears, as it were, to form the passage of urine at this part, becomes often so much swelled as nearly to obstruct the discharge of urine as completely as when the urethra is entirely stopped. Those, indeed, not versant
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in this branch of practice are apt to mistake this affection for strictures in the urethra; of course a delay takes place in using the proper remedies, and attempts which are frequently made to overcome the supposed strictures, too often do mischief. Frequently, indeed, neither a bougie, nor catheter, when employed for removing a suppression of urine, proceeding from this cause, can be passed; for the gland is in some cases so much swelled as to obliterate the passage almost entirely, and in others, by swelling on one side only, the passage is thrown altogether over to the other; circumstances which render the introduction of a bougie either impracticable, or at best difficult and uncertain.

As it is in the commencement only of this affection that any material advantage is derived from the interference of art, and as it is a disease which, in the more advanced states of it excites the greatest possible distress, we ought instantly on the first approach of it, to apply such remedies

dies as experience has proved to be most effectual in removing it.

Of all the remedies that I have ever employed, early blood-letting is almost the only one from which any obvious advantage has been derived. It ought to be advised immediately on the first approach of pain, nor should we be deterred by a weakly or delicate constitution. In a person of this description the evacuation ought, no doubt, to be more sparingly administered than where plethora takes place; but even in the most delicate habit of body, a quantity of blood should be discharged in proportion to the strength of the patient, in the first place by the lancet, and afterwards by leeches applied to the parts affected. The practice of blood-letting I consider to be equally necessary here as in cases of pleurisy: in the latter, indeed, the life of the patient is in greater hazard, but in this his future comfort and enjoyment of life are at stake. It ought not, therefore, in any instance, to be omitted.

I speak the more decidedly upon this
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from various instances having fallen within my own observation, of the most distressful consequences taking place from this remedy having been omitted, and from many others having ended easily where it was employed with freedom. It is in the first stages only of the disorder, however, in which it acts with much advantage; chiefly, indeed, on the first symptoms of inflammation taking place, for when the prostate gland becomes swelled and inflamed in any considerable degree, neither this nor any other remedy can be depended upon for removing it. After a long course of time an enlarged prostate will sometimes be found much diminished, but this happens more frequently without our being able to account for it, than as a necessary consequence of any medicine employed for it.

Blisters do not afford that relief here that we sometimes derive from them in swellings of Cowper's glands, neither is much advantage ever obtained from saturnine applications. Opium, whether given
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by the mouth, or in clysters, proves more useful than any other remedy for removing the pain and lessening the irritation; but probably from coming more directly into contact with the diseased parts, it proves evidently most successful when given in clysters, and it seems to answer better in small doses, frequently repeated, than in large quantities given at once. Thirty drops of laudanum, mixed with two ounces of thin starch, and thrown easily into the rectum, very commonly gives immediate relief, and as long as this dose proves effectual it ought not to be increased.

While opiates, given in this manner, lessen the irritability of the organs of urine, they also give much relief by removing that painful and frequent desire to go to stool, with which patients in this disease are often afflicted.

Hitherto I have said nothing of the use of injections, which are frequently employed in this, as in other stages of Gonorrhœa, for removing the running. This, how-

however, is a practice that ought by no means to be adopted. It has at first been gone into without reflecting upon its tendency, and afterwards persisted in merely from having once been adopted. In the second stage of Gonorrhœa I had occasion to remark that the discharge, instead of being stopped, ought rather to be encouraged. The same observation applies still more forcibly here, where a stoppage of the running tends always to aggravate every symptom, and where we find considerable relief often obtained by our bringing on a return of it. This, as we observed in the last section, should rather be done by the use of warm emollient injections, than by such as stimulate and give pain. These, I know, are advised for this purpose, but as I have known them evidently do much harm, even when managed in the most cautious manner, and as we find, indeed, that the disease is often at first induced by this very practice, I do not hesitate to say that it ought very universally to be laid aside. For a similar reason

reason bougies ought never to be employed here.

Emollient injections prove useful not merely by soliciting a more plentiful discharge from the urethra, but by soothing the irritability in the parts affected, and thus lessening the pain; and where opiates are conjoined with them they act still more powerfully in this manner. An infusion of the heads of poppies and althea root, used warm, answers particularly well for this purpose. Warm poultices, applied externally over the fundament and perineum, also prove useful. Some advantage too is derived from warm fomentations; and I have known the warm bath afford much relief.

All these remedies, however, act as palliatives only; but by their use the present distress may be much mitigated, while nature, in the course of time, aided by cautious management on the part of the patient, may at last accomplish a cure. At least, this, in the course of my observation, has happened in several instances where

the swelling of this gland has not arrived at any great height ; but it has been more frequently the consequence of rigid attention to regimen than the effect of medicines. We constantly find, in this complaint, that whatever excites much heat of body does harm ; whether bodily exercise, or heating food and drink : hence every thing of this kind should be avoided, particularly much walking and riding on horseback ; and full meals of animal food, especially when wine or other strong drinks are likewise indulged in. The diet should consist of milk and vegetables, with no greater proportion of animal food than is necessary to support the strength of the patient.

Such drinks should be chiefly used as tend to blunt the acrimony of the urine, and to sheath the parts which it passes over ; such as infusion of lintseed and althea, emulsions of almonds, and water in which gum arabic is dissolved.

I have insinuated that I have little confidence in the activity of any medicine for

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removing swellings in the prostate gland, when it has unfortunately acquired a considerable bulk. A deference to the opinion of others requires that I should state the grounds upon which this opinion is formed; this I shall do in noticing shortly the medicines which have been employed with the view of obviating this complaint.

When other remedies fail, and in some cases even before they are fairly tried, mercury is, in ordinary practice, recommended; but I have much reason to think that it very commonly, if not always, does harm.

Even in early practice I had frequent opportunities of seeing this complaint, and being led by conversation with others to expect substantial relief from mercury, I used it freely for several years: I must acknowledge, however, that I never perceived any advantage arise from it, while, in some cases, evident mischief was the effect of the practice.

Mercury never had any obvious effect in diminishing the tumour, and by increasing the irritability of the system,

even when given in small quantities, and in the most cautious manner, it usually rendered the parts affected more painful than they were before. On these accounts mercury appears to be not only an useless but a dangerous remedy, so that I have now, in swellings of this gland, laid it entirely aside.

Cicuta has also been much recommended in swellings of this gland ; but although I have given it very full and complete trials, I am not sure that in any instance it ever proved useful. The disease, in some, has appeared to yield while cicuta was employed, but this was only where a great length of time had elapsed, and not in a greater proportion of cases than where this remedy was never used. But as it may be employed under proper management without any risk to the patient, where other remedies do not succeed, and where it is necessary to be doing something, it may be proper to give it a farther trial before any final opinion is formed of it.

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Having, in tumours of other parts, observed obvious advantages from a decoction of the root of mezereon, I have, in various instances, used it in swellings of the prostate gland. In some it has appeared to prove useful, but never so evidently as to enable me to speak with certainty about it. When conjoined with *farfaparilla* *, it seems, in other cases, to be rendered still more active, and the mucilage contained in that root, by blunting the acrimony of the mezereon, renders it both more agreeable to the palate and more grateful to the stomach.

Among other remedies employed in swellings of the prostate gland sea bathing and drinking sea water has been one of the most frequent. Where this disease is connected with a scrophulous constitution this remedy certainly proves useful. It will never remove the tumour speedily; but, by strengthening the constitution, it seems, in such circumstances, to render the swelling less permanent than it usually

* Vide Appendix, No. 45.

proves to be where this remedy is not employed. It ought, however, to be remarked, that all strong purgatives do much harm. This happens in every stage of Gonorrhœa, but especially where the prostate gland or bladder are affected. By the irritation which they excite they not only induce a more copious discharge, but render the inclination to void urine much more frequent and more painful. When salt water is used, therefore, it ought not to be in greater quantities than will answer as very gentle laxatives.

Swelling of the prostate gland does not terminate as tumours in the other glands of the urethra frequently do, in suppuration. When Cowper's glands, or any of the smaller glands of the urethra become inflamed, they either suppurate or a cure is obtained by discussion: but, in similar affections of the prostate this very seldom happens. When the tumour does not yield to timeous blood-letting, or when it does not afterwards gradually subside, it either remains nearly of the same size and
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hardness, or becomes both larger and firmer till it ends in a real schirrus, of considerable magnitude.

In this state of the disease the discharge is, for the most part, thin and acrid; together with matter from the contiguous parts of the urethra, which are usually more or less diseased, a considerable quantity is thrown out of the gland itself, forming, as we will afterwards see, one of the most obstinate varieties of gleet.

Even in the commencement of this affection of the prostate, the passage of urine, as we have already remarked, is often much obstructed; but, in the more advanced stages of it, this, in some cases, comes to such a height as to be unsurmountable. Whether from the passage being completely obliterated by the sides of the swelled gland adhering together, which is alledged to happen, but which I never saw, or from the passage being contracted by the sides of the gland swelling unequally, it sometimes happens that neither a bougie nor catheter can be in-

roduced. In this case, as a total obstruction is formed to the passage of urine, we are obliged to draw it off by puncturing the bladder, which may either be done above the pubes, or by passing the trocar into the bladder from the rectum, or pushing it up by the side of the diseased gland *. It must be remarked, however, in forming an opening with a trocar for drawing the urine off from the bladder, that a very enlarged state of this gland precludes every attempt for this purpose either in the perineum or rectum. In which case it must necessarily be done above the pubes.

In such circumstances, all that art can do, is to preserve a passage for the urine, by retaining a canula in the opening, and keeping the patient as free from pain as possible with doses of opium adequate to the distress in which he happens to be.

* Vide System of Surgery, chapter xiii.

SECTION VII.

Of the Fourth Stage of Gonorrhœa.

IT sometimes happens that the inflammatory symptoms pass easily over the anterior part of the urethra, and shew themselves in more force and violence higher in the passage. Thus, although the third stage of the disease, in which, as we have seen, the prostate gland is chiefly affected, is sometimes produced by the inflammation spreading from those parts which are only concerned when the second stage of it takes place, yet instances often occur of the inflammation passing from the point of the urethra along the whole course of the passage, without any intermediate part of it being much affected, and fixing, in the most violent manner, upon the prostate gland or bladder.

bladder. In some cases the prostate is affected while the bladder itself remains sound, while in others it passes easily over that gland, and seizes with much violence upon every part of the bladder.

In some cases the bladder becomes affected almost on the first attack of the disease. The inflammation spreads so quickly along the urethra that the bladder is pained in the course of a few hours from the commencement of the discharge. It more frequently occurs, however, after the running has been of some duration, and, for the most part, can be traced as the consequence of much exposure to cold and dampness; of violent exertion in walking or on horseback, or, as the effect of an injection thrown with too much violence into the upper part of the urethra.

The patient, from the first approach of the disease, complains of much uneasiness, which at last terminates in severe pain over all the region of the bladder, particularly about the neck of it; accompanied with a frequent and painful desire to make
water,

water, and often with tenesmus. In some cases the pain is chiefly seated about the anus, but, in general, all the under parts of the abdomen, particularly about the region of the pubes, are greatly pained, and, in some instances, even the kidneys become affected, either from nervous sympathy, or from the inflammation spreading from the bladder along the ureters.

In general the pain, especially after voiding urine, extends to the glans penis, and as this, with the stoppage which occurs to the flow of urine, are symptoms which always accompany stone, cases of this kind, when the history of the disease has been concealed, has been mistaken for stone in the bladder.

If the running from the urethra has not been stopped by injections, it continues as if no affection of the bladder had occurred; and in general any interruption that takes place to the discharge proves only temporary; but along with the usual running from the urethra, such as takes place in one or other of the different stages

stages which we have described, a considerable quantity of matter passes off with the urine. This gives the urine a turbid appearance, as if purulent matter was mixed with it, but on examining the deposition, which is usually made in the course of a few hours, it is found to consist almost entirely of mucus.

On a further continuance of the disease this matter contained in the urine assumes a very different appearance. Instead of being broken and divided into flakes, as at first, it now becomes tough and viscid, in a very remarkable degree, resembling singlass diluted with water to the consistence of jelly. This gelatinous matter is suspended in the urine when first voided, but it soon separates, and falls to the bottom, where it adheres so firmly to the sides of the vessel in which it is received, as to be separated from it with difficulty. In some cases this substance is clear and transparent, but, for the most part, it is tinged of a yellow hue, and somewhat opaque.

When

When any considerable quantity of this matter has passed off the patient is commonly relieved, and continues easy for a longer or shorter period, according to the degree of inflammation that takes place.

In some cases the quantity of this viscid matter is very inconsiderable, being no more than what slightly covers the bottom of the pot, while in others it seems to form more than half of all that comes from the bladder. When in such considerable quantities, it tends greatly to reduce the strength of the patient, insomuch that few constitutions are able to bear it long.

From the nature of the parts in which this disease is seated, we would expect that it should be the most formidable complaint that *Gonorrhœa* could induce; but this is by no means the case: the disease described in the last section, viz. swelling of the prostate gland, proves always more so. Few recover from the one, while cures are obtained by a great proportion of all who
are

are seized with the other. At least in healthy constitutions this commonly happens, if the disease has not been much neglected at first. In general, indeed, a considerable time passes over before a perfect cure is obtained; nay, some degree of uneasiness, and certain deranged sensations, will often continue for a number of years, but after the first violence of the symptoms is over, they generally become, in a gradual manner milder, till at last they vanish entirely.

On the first approach of the disease blood-letting is the only remedy upon which most dependence ought to be placed, and, when freely practised, it seldom fails to render the symptoms moderate, and of shorter duration than they otherwise probably would be.

A quantity of blood should be taken with the lancet in proportion to the strength of the patient, and a number of leeches should be repeatedly applied to the neighbourhood of the anus. With respect to diet, and other circumstances, the patient

tient ought to be treated in the manner we have advised in the last section. His bowels should be kept moderately open with castor oil, or other gentle laxatives, and opiates should be exhibited in sufficient doses for lessening, or even for removing the pain. When treating of swelling of the prostate gland we advised opiates to be given in the form of clysters, rather than by the mouth, and this mode of exhibiting the remedy proves equally useful here.

With a view more certainly to allay the irritability of the bladder, it has been proposed to inject opium dissolved in water into it: but this appears to be a dangerous experiment. I have known it done, but the patient was nearly killed by it. Convulsions and other alarming symptoms occurred, but not in such degree as to prove fatal.

Warm emollient injections, such as warm oil, or the form of injection in the Appendix, No. 23, frequently give relief from pain, and give a temporary suspension of that

con-

constant desire to pass water which often prevails here ; and in some cases the semicupium proves successful when these have failed.

A plentiful use of mucilagenous drink, such as infusion of lintseed and althea root, and a solution of gum arabic in water, afford relief in all affections of the urinary passages, but in none more than in the one of which we are now treating.

All these remedies are meant to alleviate pain and irritation in the commencement of the disease, and when timeously applied, and duly persisted in, they very commonly prove effectual ; but in the more advanced stages of the disease, when the pain is not so severe, but when a good deal of uneasiness continues, accompanied with a discharge of that viscid matter which we have described, remedies of this kind do not afford so much relief. Opiates will no doubt tend at all times to allay irritation, but blood-letting, which at first never fails to give relief, tends now only to weaken the
the

the patient, without being productive of any advantage.

In this situation Jesuit's bark sometimes proves useful; and I have seen instances where a few grains of allum added to each dose, seemed to render it more effectual. Balsam of copaiba, and Canada balsam, prove likewise useful here: but where much benefit is expected from them they should be given in as large doses as the stomach of the patient will permit.

Of all the remedies, however, which in such circumstances I have ever tried, uva ursi is the most effectual. No advantage is derived from it where the prostate gland is diseased; but in unmixed affections of this kind, where the bladder only is affected, it seldom fails to procure relief. It may be given to the extent of a scruple at first, and afterwards half a drachm of the powder three times a day, in which quantity it seldom fails, in the course of a few days, to lessen the proportion of viscid matter in the urine; by which, and the abate-

ment of pain which at the same time takes place, we are always certain that the inflammation also is diminished.

On the idea that this affection of the bladder proceeds from a translation of the matter of Lues Venerea from the urethra, mercury is commonly used in it; but although I have often given it, I never knew any advantage derived from it; it sometimes even does harm. It increases the irritability of the system in general, as well as of the parts more particularly affected.

When affections of this kind have continued long, the bladder is apt to become much thickened and lessened in diameter: hence, even after all the other symptoms are gone, the frequent inclination to pass urine continues. In some cases this goes on for years; nay, I have known it endure for a great length of time, and only terminate with the life of the patient. It seems evidently to be the effect of inflammation, for it succeeds to inflammation of the bladder, by whatever cause it may be
in-

induced. It also occurs from strictures in the urethra, when they happen to be considerable and of long duration.

For the removal of this thickened state of the coats of the bladder mercury is often prescribed, and in some cases it has certainly proved useful; but it seems to prove equally so from whatever cause the disease may at first have arisen*.

* This practice of giving mercury in the thickened state of the urinary bladder, which succeeds to inflammation, we find recommended by the late Doctor Ebenezer Gilchrist of Dumfries, to whom we are indebted for much valuable information in different parts of the practice of medicine.

SECTION VIII.

Of Chordee.

CHordee is a painful, involuntary erection of the penis. Patients in every stage of Gonorrhœa are, in some degree, liable to Chordee; but it occurs much more frequently, and to a much greater height in the second stage of the disease, than in any of the others. It happens at all times of the day, but most frequently when the patient is warm in bed, when it is in some instances so severe as to deprive him entirely of rest. During a fit of Chordee the penis becomes hard and painful to the touch, and for the most part it is curved downwards in a considerable degree.

Chordee occurs in every period of this stage of Gonorrhœa, and it sometimes remains

mains after the heat of urine and all the other symptoms are gone, but it is usually most severe during the continuance of the inflammation, and becomes more or less so according as that symptom is in a greater or lesser degree.

I therefore conclude that Chordee is an effect of inflammation, and that it proceeds from irritation, communicated from the nerves of the urethra to those of the contiguous muscles, by which those unequal degrees of contraction are produced over the whole substance of the penis, which universally take place in this disease.

Were it owing to effusions of lymph into the reticular parts of the penis, as some have imagined to be frequently the case*, Chordee would be of a more permanent nature than we ever find it to be, and these effusions would be apt to terminate in suppuration. Now, although suppuration is sometimes the consequence of in-

* V. John Hunter on the Venereal Disease.

inflammatory tumours in these parts, I have never observed that it happens in those tumefactions which accompany Chordee. The latter commonly rise and disappear again in the course of a few hours, and they are more diffused than tumours usually are which proceed to suppuration. The others rise more slowly, and they terminate, whether by dispersion or suppuration, in a much more gradual manner.

Of all the remedies I have ever employed opiates prove most useful in Chordee. The pain and tension are sometimes removed by rubbing the parts affected with laudanum, or with a strong solution of opium in water, and by keeping pledgits immersed in either of these, constantly applied to them; but the greatest advantage is obtained from the internal exhibition of opium. Thirty or forty drops of laudanum, given at bed-time, or on the accession of the Chordee, very seldom fails in preventing or removing it.

Emollient injections thrown up the urethra, particularly when impregnated with
opium,

opium, have also a powerful influence in lessening the violence of Chordee; and as the heat and irritation produced by coſtiveness tends greatly to augment the violence of this ſymptom, I have known much advantage obtained from the operation of a gentle laxative.

A temporary relief is often derived from the application of a cold ſolution of ſaccharum ſaturni, and I have known the external application of camphor prove ſerviceable: when diſſolved in ſpirit of wine it proves uſeful, but it acts with more advantage when diſſolved in oil. Frictions with mercurial ointment have been much recommended for the removal of Chordee, but as I have commonly found more advantage from rubbing with camphorated oil, I conclude that it is chiefly the emollient properties of the mercurial ointment which render it uſeful, and, therefore, that the inconveniencies which ſometimes occur from mercury, may here be avoided.

In ſome caſes we derive advantage from tying the penis down with a fillet to the
L 4 thigh,

thigh, but it only answers in very slight affections, and the practice ought never to be advised in the more severe attacks of the disease. Being an obvious remedy for counteracting an erection, it is not unfrequently employed in the first instance by the patient; but I have frequently known it do harm, either from the fillet being applied too tight, or from the parts being in such a state of tenderness as to render it altogether inadmissible.

When none of these remedies succeed, blood-letting sometimes proves useful; particularly by the application of leeches to the parts affected, nor ought this ever to be omitted when the patient is of a plethoric habit, or when the pulse is full. When Chordee takes place in a slight degree only, blood-letting is never necessary; but whenever it is severe, and resists the other remedies we have mentioned, we ought never to hesitate in advising it. Blood-letting proves more effectual than any other remedy in preventing that permanent kind of Chordee, which sometimes

times continues very distressful long after every other symptom of Gonorrhœa has disappeared.

Opium is one of our most effectual remedies in every stage of this symptom, but particularly where it has been of long continuance. In this state of the disease I have sometimes found, where opium has failed, that hen-bane, the *hyocyamus niger* of Linnæus, has proved useful. A grain of the extract, properly prepared, may be given three times a day at first, and the dose encreased to two, three, or more grains, according to its effects. I have given to the extent of seven and eight grains three times a day, with no inconvenience whatever; but this was after the patient had been for some weeks accustomed to the remedy.

SECTION IX.

Of Hæmorrhages from the Urethra.

IN the description of the disease, we have seen that the matter of Gonorrhœa is frequently tinged with blood. When the quantity of blood is inconsiderable little or no notice is taken of it, the matter gradually acquires the common appearance, and a cure is accomplished in the usual way; but when a blood vessel of any magnitude bursts in the urethra, as sometimes happens when the inflammation runs high, such quantities of blood are discharged as prove highly alarming. I have known different instances of three or four pounds of blood being discharged in the space of a few hours.

On the first appearance of this symptom complete rest should be immediately recom-

recommended, for nothing tends more to promote hæmorrhages of every kind than bodily exertion. The patient's bowels ought to be opened with a gentle laxative; his diet should be of a cooling nature; he ought to be kept in a cool, well-aired apartment, and the penis should be immersed, from time to time, in a cold solution of cerussa acetata, in equal parts of vinegar and water.

In Hæmorrhages of every kind I have derived much advantage from a plentiful use of kino, and particularly in the symptom which we are now considering. It may be given in the quantity of twenty grains four times a day, and it may be used either by itself or rubbed with equal parts of gum arabic and fine sugar, which renders it both more palatable and more grateful to the stomach.

In some cases I have derived advantage from astringent injections; particularly from an infusion of red rose leaves, strongly impregnated with allum, as in No. 21, and from No. 14*, of which balsamum co-

* Vide Appendix.

paiba forms the basis. The injections should be thrown up with caution, and retained by compressing the urethra as long as the patient can bear them.

When all these means fail, and when there is cause to suspect that the patient's life may be endangered by the loss of too much blood, recourse must be had to pressure. I have, in different instances, put an immediate stop to the discharge by inserting a bougie into the penis. When the bougie is large nothing farther is necessary; but when it does not prove successful of itself, if the discharge proceeds from the fore-part of the penis, it may be stopped at once by gentle pressure with a narrow roller, and when it flows from the perineum, by continued pressure with the hand or fingers.

With a view to obtain a long continued pressure, a catheter of elastic gum may be used instead of a bougie, by which the patient may, with due care and attention, void his urine, while the pressure is continued: but if the bladder is emptied immediately

mediately before the bougie is introduced, it may, for the most part, be retained as long as is necessary.

Having in this and the preceding sections considered Gonorrhœa in the different forms under which it occurs in men, we shall now offer a few observations upon the same disease as it appears in females.

SECTION X.

Of Gonorrhœa in Women.

Women are less susceptible of this disease than men; and with them it is also less violent in its symptoms, and less alarming in its consequences.

Why men should be more readily infected than women is difficult to explain; but that the disease should prove more violent in the former is evident. The parts

parts which it attacks are more numerous, and more deeply seated; and we find that all the symptoms of this disease are mild or severe according as the parts affected are deeply seated, or otherwise. Hence, as long as the extremity of the urethra only is affected, the symptoms of Gonorrhœa are equally violent in both sexes. During the continuance of the first stage of the disease in men, the pain is never more severe than we often meet with it in women, nor does it ever become so till the inflammation proceeds to a greater depth.

In women the discharge proceeds either from the vagina or urethra, and in some cases, partly from both. When the vagina only is affected the pain attending it is inconsiderable, unless the matter is so acrid as to inflame the clitoris, nymphæ, or labia pudendi, as we sometimes find is the case; but whenever the urethra is the seat of the disease, the same degree of ardor urinæ takes place as usually occurs in men. Nay, in women this symptom is often more severe, and the inflammation
by

by which it is produced proceeds more readily and more frequently in them to the bladder than it usually does in men; for, in most instances of Gonorrhœa in women, they complain of severe pain over the loins, and all the region of the bladder, and their urine very commonly deposits mucus in such quantities as indicates a considerable affection of that viscus.

This must happen from the passage to the bladder being considerably shorter in them than in men; and the urethra being wider and not so liable to be obstructed, the symptoms arising from affections of this part are neither so severe, nor are they usually of such long continuance.

On examining the seat of Gonorrhœa in women, it is often difficult to determine whether the disease exists or not, and if the patient is inclined to conceal any circumstances connected with her situation, it is altogether impossible to ascertain this point with precision. This uncertainty occurs from the similitude of Gonorrhœa to the matter of fluor albus, a
disease

disease to which women are so very liable, that, in some degree, scarcely any but the most robust are at all times free of it. Besides a similarity in the matter, the heat of urine, and inflammation of the contiguous parts, are often equally severe in the fluor albus as they commonly are in *Gonorrhœa*.

The chief distinction which external appearances afford between the two diseases, is, that in fluor albus the matter is of a whiter colour than in *Gonorrhœa*. In the latter it is somewhat of a cream colour, whereas in fluor albus it is usually of a pale white colour, and of a thinner consistence. It must, however, be acknowledged, that these means of distinction are by no means sufficient, and that no certainty upon this point can be obtained but by a full account being received from the patient herself of all the circumstances connected with the case. When a woman is seized with heat of urine, and a discharge of matter from the parts of generation, and at the same time admits that these symp-
toms

toms succeeded to her connection with a man labouring under Gonorrhœa, no doubt will remain of the nature of the disease: but when a patient inclines to conceal the real cause of her disorder, no means with which we are yet acquainted are sufficient to ascertain the difference between these two diseases.

It fortunately however, happens, that the remedy which answers with most certainty in the one, proves equally powerful in the other: the remedy I allude to is an astringent injection. All the variety of injections enumerated in the foregoing sections may be used with equal propriety here: but it is chiefly the vitriolic solution, No. 18, upon which much dependence should be placed. When duly persevered in, and thrown up five or six times a day, it seldom fails, in women, to accomplish a cure of Gonorrhœa, and it proves equally successful, as I have observed above, in removing the fluor albus.

Where, indeed, the constitution is much debilitated, and where the discharge is

kept up by general relaxation of the constitution, although injections may remove the running, they will not prevent a return of it; but from much experience of their influence I can recommend them as one of the most powerful remedies that has yet been used for this very distressful symptom, to which a great proportion of the sex are liable.

In females injections may be used with the greatest freedom, when the discharge proceeds from the vagina; but in throwing injections up the urethra more circumspection is necessary than is even required in men. The urethra in women being short, and the sphincter of the bladder more easily forced, if injections are thrown up with violence, they will readily pass into the bladder; and as this might be productive of much irritation and pain, it ought to be carefully guarded against. With proper attention this is easily done; and as the running proceeds, for the most part, from within half an inch of the extremity

tremity of the urethra, there is no necessity for throwing injections farther.

Where the disease is entirely confined to the urethra or vagina a cure may always be accomplished by injections; particularly if these be accompanied with a proper attention to diet, and to the state of the bowels: but where the bladder is already affected, other remedies are required. The patient must lose blood in quantities proportioned to her strength; the diet should be very low; her bowels should be kept easy with gentle laxatives; and the pain and irritation should be lessened or removed with doses of opiates proportioned to the violence of these symptoms.

In women the mucous glands of the parts affected are apt to inflame, although not so frequently as in men, nor are the consequences which result from them so apt to prove permanent. This may happen from none of these glands being so large in women: hence, when they swell from inflammation, they do not arrive at such a

bulk, and when they suppurate, the abscesses which ensue more easily heal. They are chiefly situated in the labia pudendi, and in the vagina.

Swellings of this kind in women require the same method of treatment as in men. Blood-letting, both general and local, should be advised on the first appearance of the tumours, and the parts affected should be kept covered with a cold solution of saccharum saturni in water and vinegar. When this fails in preventing their increase, warm emollient cataplasms should be advised, in order to forward suppuration; and this taking place, the tumour should be laid open with a free incision from one end to the other.

Where tumours of this kind arrive at a larger size than usual, I have, in different instances, both in men and women, discharged the matter by the introduction of a seton. But as setons are not easily managed in this situation, the mode of opening them by incision should be preferred; and it will commonly be found that it answers

fwers best to lay the abscess open through its whole length.

In the treatment of Gonorrhœa in women there are some who uniformly prescribe mercury, although they never advise it in men. This they do from an idea of its being more frequently connected with Lues Venerea in women than in men.

I have not found, however, that this is the case, or that there is cause for mercury being given for this disease in women more than in men. Gonorrhœa often takes place in women as it does in men, along with Lues Venerea: in such circumstances mercury must no doubt be employed; but by no means on account of the Gonorrhœa. So far as my observation goes, the disease is to be cured in both sexes in the same manner, chiefly, as I have already remarked, by the use of astringent injections.

It happens, indeed, in women, as it does in men, that Gonorrhœa, particularly the milder forms of the disease, will disappear

whether injections are used or not. This, in former times, was attributed to the purgative, demulcent, and astringent medicines, which in all cases were used in large quantities; but by later experience we know that none of these remedies are necessary, and that the disease disappears as soon, and with as much certainty, where none of them are employed, merely by keeping the parts clean, with a proper attention to regimen.

In speaking of cleanliness it is proper to remark, that both in men and women it ought at all times to be inculcated, particularly in women, where the matter of Gonorrhœa is very apt to become acrid, and excoriate the parts to which it is applied.

Attention to this circumstance is often advised, on the supposition of chancres being likely to occur from the matter of Gonorrhœa, where it is allowed to rest long upon any particular spot. Whatever excites attention to cleanliness will here prove useful; but no practitioner of observation

vation will now admit that the advantages arising from it proceed from this cause. Were this the case, excoriations produced in this manner would not heal without the use of mercury; whereas we all know, that affections of this kind, proceeding from the matter of Gonorrhœa, never require mercury, and that they heal easily merely by bathing the parts frequently, and preventing the matter from resting upon them in future.

SECTION XI.

Recapitulation.

I Have thus finished the observations I had to offer on Gonorrhœa as it appears both in the male and female patient; but it may not be improper in this place, by

a short and general recapitulation, to bring the subject into one point of view.

1. From the arguments stated in different parts of the preceding sections it appears that Gonorrhœa is a local disease, proceeding from a specific contagion, and not necessarily connected with any other.

2. That the discharge of matter which takes place is not the effect of ulceration, but proceeds from an inflamed state of the urethra and contiguous parts.

3. That this inflammation, while confined to the membrane of the urethra, particularly to the parts near to the extremity of the penis, is never productive of any alarming symptom: a discharge of matter, accompanied with ardor urinæ, and some slight degree of Chordee, being almost the only ones that take place.

4. That the disease is always formidable in proportion to the depth of parts that are affected, the symptoms which occur

cur being more or less violent, and productive of more or less hazard, according as the inflammation has reached to Cowper's glands, the prostate gland, or to the bladder.

5. That in the cure of Gonorrhœa no advantage is derived from mercury, or any remedy acting altogether upon the constitution. The disease being entirely local no medicine proves useful but such as act directly upon the parts affected.

6. That where the membrane of the urethra is alone affected, no remedy proves so successful as astringent injections*.

7. That these injections, in order to act with safety and advantage, must be thrown up with much caution, and repeated from six to eight or ten times a day, at the commencement of the disease; less frequently as the discharge lessens, and at last, in a gradual manner, laid entirely aside.

* Vide Numbers 18 and 19 in the Appendix.

8. But

8. But although injections of this description may be used with safety in all cases of Gonorrhœa where the membrane of the urethra only is affected, that they are never employed but with much risk of doing harm where the inflammation has reached to Cowper's glands, to the prostate gland, or to the bladder.

9. That the greatest attention is therefore required in distinguishing between the different stages of Gonorrhœa; the want of this having, with some practitioners, brought the use of injections into discredit, when the fault did not lye in the remedy, but in the improper application of it.

10. That in all states of the disease, where the inflammation has gone farther than the membrane of the urethra, instead of wishing to remove the discharge, we should rather endeavour to solicit a greater flow of it; the running, in such circumstances, being only a secondary object, when

when compared with the consequences which are apt to ensue from inflammation proceeding to a great height. For the more certain prevention of which, blood-letting, both general and local, are particularly useful on the first approach of such symptoms as indicate an affection, either of the mucous glands of the urethra, the prostate gland, or bladder.

11. That when, notwithstanding of blood-letting, a low regimen, and other parts of an antiphlogistic course, tumours form in Cowper's glands, or in any other parts contiguous to the urethra, and when suppuration occurs in them, the matter should be immediately discharged by an incision of a sufficient size, and the sore treated in the usual way.

12. That in affections of the prostate gland, which do not give way to blood-letting, opium alone is to be depended on for relieving the irritation and distress which ensue from them; the pain being often so severe that no other remedy
proves

proves in any degree useful. That opium, in these cases, proves always most effectual when applied directly to the parts affected, in the form of injection; and that extract of hyocyamus may be used when it is found that the costiveness, which usually results from opium, proves hurtful.

13. That when the bladder is affected, opium or hyocyamus are in like manner to be used to relieve pain. That uva ursi is the most effectual remedy for obviating the discharge of viscid mucus, the usual consequence of inflammation of the bladder, and that the thickening of the coats of the bladder, which inflammation, from whatever cause it arises, is apt to induce, has in some cases been removed by a gentle course of mercury.

14. And lastly, it appears, that the leading symptoms of Gonorrhœa are so much alike in both sexes, that the general method of treatment is similar in both: only that in women, from the situation
and

and organization of the parts affected admitting of it, injections may at all periods of the disease be used with more freedom than in men; an inflamed state of the bladder being, in women, almost the only circumstance that can take place in Gonorrhœa to render injections improper.

CHAP.

C H A P. III.*Of the Consequences of Gonorrhœa Virulenta.*

SECTION I.

General Remarks on the Consequences of Gonorrhœa Virulenta.

ALTHOUGH the treatment pointed out in the preceding sections for the cure of Gonorrhœa will in general prove successful, yet every candid practitioner will admit that it is not always so, and that instances occur of different symptoms proving obstinate, notwithstanding a careful and attentive application of every remedy with which we are acquainted.

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The causes of this failure I have already endeavoured to explain. In this part of the work I mean to speak of the consequences of Gonorrhœa; some of which are, in most instances, the effect of mismanagement, while others ensue after the greatest care and attention in the conduct of the cure. They are all, however, of a local nature, and not necessarily connected with any general disease of the constitution. The following is the order in which I mean to treat of them :

Gleet; feminal weakness and impotency; strictures in the urethra; abscesses and fistulæ in perineo; deranged sensations in the bladder and urethra; swelling of the testicle; swelling of the epididymis and spermatic chord; swellings of the lymphatic vessels of the penis; swelling of the glands in the groin; excoriations of the glans and prepuce; phymosis; paraphymosis; warts on the glans, prepuce, and labia pudendi. And, lastly, I shall add a few observations on what may be termed Gonorrhœa

norrhœa Simplex, in which a discharge occurs from the urethra, without any infectious matter being applied to it.

SECTION II.

Of Gleets.

WHEN the discharge in Gonorrhœa continues obstinate, after the symptoms of inflammation are removed, the disease is then termed a gleet.

From this definition we might be led to imagine that the import of the term Gleet would be clearly and generally understood, and that no risk could occur of its being misapplied. This, however, is not the case; for the symptoms which one practitioner considers as Gleet, are by others said to be Gonorrhœa. Some assert that Gleet does not take place till the discharge becomes colourless, and resembles mucus; while

while others are of opinion that Gonorrhœa changes into Gleet before this change of colour is perceptible.

All agree in this, that Gleet does not take place so long as the discharge is capable of communicating infection; but no precise marks have yet been discovered by which we can judge of this circumstance with certainty. When the discharge becomes transparent and viscid, like mucus, I believe that no infection will ever ensue from it; but I also suppose that it is often equally harmless long before this change has appeared in it. By the use of astringent injections, demulcents, and cooling purgatives; and, in some cases, by the lapse of time alone, the running in Gonorrhœa will lose its colour, acquire a mucous appearance, and even abate in quantity, and yet it will again become yellow, and appear in larger quantities than at first. In such circumstances the discharge may be considered as altogether deprived of the power of communicating infection; at least no instance of the con-

trary has ever occurred to me, and I have reason to think, that, in every instance it will be found to prove inoffensive where the inflammation by which it was at first induced has been once completely removed, whatever the method of cure may have been by which this was accomplished: while, on the contrary, I am convinced, from a variety of facts which might here be enumerated, that so long as the primary inflammation of *Gonorrhœa* continues, however long this may be, the matter produced by it is equally capable as at first of communicating infection. Admitting, therefore, that the running should not be denominated Gleet, so long as it is in any degree infectious, it is evident that this term ought not to be applied to it, till it has become clear and transparent, or till the inflammation by which it was at first induced is removed, and of which we can only be certain by the ceasing of the pain which accompanied the inflammatory state of the disease. The discharge in *Gonorrhœa* frequently disappears altogether,

ther, and the patient considers himself, for the space of several days, nay, in some instances, for weeks, as completely cured; when, either by violent exertion on horseback or on foot, by excess in drinking, or too early connection with women, the running will again take place, with every mark of a new infection. When the patient, however, is conscious of not having exposed himself to the risk of being infected, he may always consider this renovated discharge as of a harmless nature, provided the inflammation and pain by which it was at first excited had previously disappeared. Among other proofs of this, I might mention various instances of married men, who, from Gonorrhœa contracted in youth, have frequently, during life, from one or other of the causes I have mentioned, experienced frequent returns of this discharge, who, in this situation, have had frequent connection with their wives, without communicating the disease. In some of these the discharge will be absent for several weeks, nay, for

months together; while in others it has not disappeared for more than two or three days at once, during the space of twenty years.

In all of them, upon its first recurrence, it has exactly the appearance of a new infection; but the event soon shews it to be materially different. If astringent injections are employed, they, for the most part, put an immediate stop to the running; and, when left to itself, the matter becomes more quickly colourless than it ever does in a recent case of Gonorrhœa.

In one instance, a gentleman applied to me in a state of the greatest distress, the day after his marriage. He came upwards of twenty miles from the country, with every appearance of a recent clap; which, he assured me, had broke out that very morning, although no appearance of an infection, under which he formerly laboured, had been perceived for upwards of three months, nor had he, during that period, been exposed to the risk of getting a new one. This, in the state of temporary frenzy,

frenzy, under which I found him, led to the distressful idea of his having been infected during the preceding night, by his newly married wife. I assured him that this was impossible; for that, independent of the surety which he derived from the unblemished character of his wife, no infection could have appeared with such violence in such a short space of time; and on hearing that he formerly laboured under Gleet, I also ventured to say, that the discharge would probably disappear almost as suddenly as its approach had been rapid. My prediction proved true. I immediately threw up a vitriolic injection, and caused him repeat it three or four times in the course of a few hours. By five or six o'clock in the afternoon nothing but a slight oozing from the urethra was perceptible; I furnished him with more of the injection, and he went home perfectly satisfied in the evening.

This happened several years ago, and the same appearances have uniformly recurred since that period, upon every connection

with his wife, but no infection has ever been communicated to her. For a considerable time he always had recourse to the injection on the running taking place, but at last, being perfectly convinced of its being perfectly harmless, he allowed it to go on; so that for these last three or four years, he has seldom been many days together free of it.

But although patients, from being long accustomed to this discharge, come to find that it does not communicate infection, still they can never look upon it with indifference; they all find it troublesome and distressful, and are therefore, at times, anxious to get free of it. When, at the same time we consider, that a long continued Gleet is apt to lay the foundation of some very obstinate and perplexing affections of the urethra, it will at once appear, that in every instance, this symptom merits our serious attention.

Gleet seems evidently to arise from different causes, requiring different modes
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of treatment: it will therefore be proper to consider them separately.

1. The most frequent variety of Gleet succeeds to the first stage of Gonorrhœa, in which we do not suppose that the original inflammation proceeded farther than the urethra itself, or the small mucous glands immediately emptying into it.

When the cure of this variety of Gonorrhœa is interrupted, either by improper treatment, or by negligence on the part of the patient, and when the discharge is thereby allowed to go on for any unusual length of time, Gleet is thus frequently produced. Astringent injections will, for the most part indeed, put a stop to the running, but the slightest excess very commonly excites a return of it.

This variety of the disease we conclude to proceed from relaxation and debility in the parts first affected, and that the obstinacy with which it often continues depends upon a farther degree of weakness, induced in these parts by the longer con-

tinuance of the running; by which it would appear to have a power, if not counteracted, of continuing or propagating itself.

By some, this idea of Gleet proceeding in any instance from weakness, is ridiculed; and as the suggestion comes from very respectable authority I think it right to take notice of it*.

Mr. Hunter observes, that by mechanical weakness is understood the not being able to perform some action, or sustain some force; by animal weakness the same; but he cannot understand the expression when applied to an animal performing an uncommon, or an additional action, as seems from the quantity of matter discharged, to happen in Gleet.

This opinion appears to be founded upon the idea of an increased discharge being always the consequence of an increased action in the vessels of the part from whence it proceeds; and it originates from

* Vide Treatise on the Venereal Disease, by John Hunter, p. 100.

his not discriminating between general debility and local relaxation, or loss of tone in a particular part.

Although an increased discharge in the vessels of any part would seem to imply an increased action in these vessels, yet the reverse of this will, I believe, in most instances, be found to happen; and that affections of this nature proceed chiefly, if not entirely, from local debility. Loss of tone in the exhalents will necessarily produce a more copious discharge of their contents than will probably happen while their power of retention remains entire. Were these vessels unconnected with the rest of the system this would not take place; but connected as they are with the arterial system, while the vis a tergo remains the same, any partial debility to which they may be liable, must, perhaps universally, be attended with a preternatural effusion of their contents.

There is much reason to suppose, from the phenomena which occur in inflammation, that an increased action takes place
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in the vessels of the part affected: but during the existence of this increase of tone, we commonly find that, in Gonorrhœa, the discharge is not so considerable as it afterwards becomes when the symptoms of inflammation abate. Nay, it is universally known that the running is apt to stop entirely when the parts affected inflame to a greater degree than usual, and that nothing so readily solicits a return of it as the removal of this inflammation, by the use of emollient injections.

This is an argument of some importance in favour of our opinion, and it is farther confirmed by the nature of all the remedies which we employ in Gleet, which are either of an astringent, strengthening kind, or consist of stimulating injections, and other applications of a similar nature, which seem to act by exciting an encreased exertion in the vessels of the affected parts, by which they are enabled to resist the action of the arterial system from behind.

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I therefore consider it as clear and decided that this variety of Gleet proceeds from relaxation and debility of the exhalents of the urethra, and, perhaps, of the excretory ducts of the smaller mucous glands of that passage.

This opinion of Gleet being connected with debility, may indeed be carried too far, as happens, I believe, daily in common practice. Where Gleet has run on for any length of time, many think that it has either at first proceeded in a great measure from general weakness of the constitution, or that it has tended to excite such a general degree of debility as will effectually obstruct every attempt towards a cure, till this state of the system be removed.

Hence the patients are with much care and anxiety enjoined the use of bark, steel, and other tonics, with a view to remove the general debility; while less attention is usually given to the real cause of the disease, the local relaxation of the parts originally affected.

That

That general weakness often takes place in Gleet, and that it may even be induced by a long continuance of the discharge, will not be denied ; but I have much reason to think, that in practice, this idea is often carried farther than it ought to be. This must necessarily be the case whenever it makes us lose sight, as I have observed above, of the real origin of the disease ; but there is also cause to imagine, that in giving additional vigour to the system at large, we tend to encrease the discharge by the urethra, unless the tone of the parts which have been more particularly weakened be at the same time restored. The reason of this has been explained above, and I have often had evident proofs of the hurtful tendency of the practice ; by which, while the patient, from the effects of sea-bathing, a full diet, and the use of tonics, was daily getting more full in flesh than he was before, the disease has evidently been gaining ground, from no particular attention being given
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to the state of the parts from whence the running proceeds.

In a state of universal debility, whether induced by a long continuance of the discharge, or any other cause, the greatest attention ought certainly to be given to it; but what I wish to inculcate is, that in common practice we rather do harm by considering this general relaxation of the system as the first object of attention, when, in fact, it often either does not take place at all, or only in such a degree as to render it a matter of very trifling importance, when compared with the disease in the urethra.

In a great proportion of cases of this variety of Gleet, our attention should be almost entirely directed to this affection of the urethra; and by experience we find that such remedies are chiefly to be depended on as act directly upon the seat of the disease.

A variety of medicines have been employed for this purpose, but they may all

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be comprehended under the two general heads of astringents and stimulants; for all that have yet been found useful in Gleet seem either to act by their astringent properties, or by their power of stimulating the parts to which they are applied.

When astringent injections have not been already employed, they ought, in the first place, to get a full trial; for although they do not always prove successful, yet they frequently do so, and we seldom or never find that any risk ensues from them, as sometimes does from stimulating injections.

Any of the astringent solutions for which prescriptions are given in the Appendix, may be employed; but the vitriolic solution, No. 18, is one of the safest, and very commonly proves the most effectual. In the use of all injections of the astringent kind it is necessary to throw them frequently up, not less than six or eight times a day. This was particularly inculcated in the use of injections in Gonorrhœa,

norrhœa, and it proves equally proper in this variety of Gleet.

But where astringent injections have already been employed for the cure of the preceding Gonorrhœa, and where there is no doubt of a complete trial having been given them, in such circumstances, as there would be no cause to expect advantage from a farther use of them, they ought to be laid aside.

In that state of the disease where a plentiful discharge takes place, with little or no pain, and where astringents have been employed with no advantage, stimulating applications become particularly proper.

The stimulants we employ are of two kinds; acrid solutions and mixtures in the form of injections, and bougies. Which ever of them are used must be of such a nature as to stimulate the parts gently to which they are applied, but not so strong as to excite inflammation in any considerable degree. They prove most successful where they give only a moderate degree of pain and heat in the urethra; such as
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is felt in the commencement of the first stage of Gonorrhœa. Instances, indeed, often occur of a newly contracted clap carrying off a Gleet that has been of long duration; and as this is always productive of some degree of inflammation, we conclude that the remedies employed in Gleet must act in a similar manner, viz. by gently stimulating and exciting the parts to inflame in such a degree as experience shews to prove useful. To excite violent pain would at all times be improper, as the inflammation which this would produce might go farther than we would incline it to do. Much harm, indeed, has been done by want of attention to this circumstance. A swelled testicle is not an uncommon effect of it; and I have known the inflammation carried to the prostate gland and bladder.

This, however, may always be prevented; nor can it ever occur but from great inattention. Wherever injections are used, they should at first be so weak as to excite only a very slight degree of uneasiness.

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In the formulæ annexed to this they are of such a strength as to act in this manner in a great proportion of people, although, in some instances, I have found them rather weaker than necessary. An addition of strength, however, is so easily given, that at first they ought never to be stronger,

One of the best injections for ordinary use is a weak solution of corrosive sublimate in water*. That is, in the proportion of an eight part of a grain of the mercury to an ounce of water, which is as strong as it ought ever to be used at first; although I have met with some, who, in a gradual manner, have been brought to bear half a grain to an ounce. I know that some have advised it of a still greater strength, even to the extent of a grain of mercury to the ounce of water; but although I am in the daily practice of using this remedy, I never found any person who could bear it of this strength. I therefore suspect that those who advised it have never known it used.

* Vide Appendix, No. 24.

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I have taken the more particu- lar notice of this, from several instances having fallen within my own observation, of very pernicious consequences ensuing from the use of injections containing too great a proportion of mercury, while no inconvenience arises from them when not stronger than those I have pointed out.

In some cases, where a solution of corrosive sublimate by itself has failed, I have known the addition of saccharum saturni prove useful *; and in some very irritable patients, in whom even the smallest quantity of the mercury excited too much pain, the addition of mucilage has enabled them to bear it. Of this a formula is given in the Appendix †.

A solution of crude sal ammoniac ‡ proves sometimes effectual in this state of Gleet. The volatile alkali, such as spiritus corn. cervi, and spiritus salis ammoniaci, properly diluted, make likewise use-

* Vide Appendix, No. 25. † No. 26.

‡ Appendix, No. 27.

ful injections for this purpose, as in formulæ No. 28 and 29; and verdigrise, dissolved either in oil, or in spirit of sal-ammoniac, afford also a very effectual form of injection for the same purpose: formulæ of these last are given in Nos. 30 and 31.; and in some instances tincture of cantharides, properly diluted, as in No. 32, has been found to answer.

Besides the circumstance of ascertaining the proper strength of these injections, a good deal of address is required in the application of them. They must not be employed either so long or so frequently as is required for astringent injections; with these no harm can occur, however frequently they may be applied; but injections of a stimulating nature should not be continued longer than is just necessary for exciting some degree of pain and inflammation in the affected parts.

This being accomplished, a few days should elapse, before any other remedy is employed; for it sometimes happens that the running will stop after these stimulat-

ing injections are laid aside, although, during the use of them, it appeared to be increased. But when, after an interval of three or four days, this does not appear likely to happen, injections of an astringent kind should be immediately employed, as we have already advised in the first stage of Gonorrhœa.

Even these will not always succeed ; for it sometimes happens that the running, although it may disappear for a few days, will yet return again and again, with equal violence as at first.

In such circumstances, the stimulating injections must be again renewed, and the inflammation ought now to be excited in a degree somewhat greater than before ; for I have commonly found that this may be done with more safety in the subsequent applications of this remedy ; and in the more advanced stages of Gleet the higher the degree of inflammation that can with safety be excited, the greater certainty there is of its proving effectual.

When

When injections do not accomplish a cure, we endeavour to effect our purpose by the use of bougies. By irritating the urethra, bougies answer the same purpose with stimulating injections; and, in some instances, they have appeared to prove more effectual, perhaps from the support which they afford to the parts which have been deprived of their tone. This, however, does not happen with any kind of certainty, inasmuch that I always give the preference to injections in the first instance, as being less formidable in the application to all such patients as have not been accustomed to the use of bougies.

Bougies composed of the most simple materials, commonly answer all that we expect from this kind of remedy; but when these fail in exciting a sufficient degree of inflammation, they are easily rendered more active by dipping them in oil of turpentine, in a thin liniment of wax and oil with a small proportion of red precipitate, or in common basilicon reduced

duced with oil of turpentine, to the consistence of a liniment.

I have no reason to think that mercurials act in the cure of Gleet in any respect as specifics; but the stimulus which mercurial ointment gives to the urethra, when applied upon bougies, proves often as effectual as that from any medicine which we employ. It is proper, however, to observe, that the ointment for this purpose ought to be strongly impregnated with mercury: there should not be less than equal parts of quicksilver and hog's-lard; and I have sometimes thought that mercury, extinguished by triturating with honey, acts more certainly as a stimulant than it usually does in the form of an ointment.

If the constitution has been much debilitated, we ought, while this application of remedies to the diseased parts is going on, to advise a nourishing, invigorating diet. The patient should be allowed animal food, and a moderate portion of red wine daily; and in such circumstan-

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ces bark may with propriety be exhibited as a tonic: but for the reasons I have given above, I have much cause to think that the general practice of giving bark, steel, and other tonics, in every case of this kind, is by no means well founded, and in many instances that it does harm.

Some of the stimulating astringent balsams, given internally, frequently prove useful here; probably from their tendency to stimulate in a more particular manner the organs of urine than any other part of the body. Balsamum copaiba is chiefly used for this purpose, but Canada balsam, and all the turpentine, may be employed with perhaps equal advantage. Fifteen or twenty drops of any of these may be given three or four times a day.

A cautious use of cantharides has also proved serviceable in this variety of Gleet. Ten drops of the tincture may be given two or three times a day.

But although some advantage may be derived from all of these remedies, when employed along with local stimulants, as

we have advised above, yet no dependence is to be placed upon them when they are not conjoined with these. This, it may be said, renders the advantages to be expected from them doubtful and equivocal; but in different cases I think I have perceived greater advantages from a combination of these two sets of remedies, than usually occurs from a separate use of either of them.

Cold bathing is a remedy commonly advised in Gleets, and where the constitution is so much debilitated as to require attention, it will very generally answer a good purpose; otherwise no advantage can probably accrue from it, if it be not from the local application of cold to the parts chiefly affected. In this view, the daily effusion of cold water upon the penis, and the bathing of the perineum, proves sometimes useful.

2. The next most frequent variety of Gleet succeeds to the second stage of Gonorrhœa. After all the symptoms excited by the actual presence of inflammation have

have subsided, this variety of the disease is very apt to terminate in Gleet.

In the third section of the last chapter I endeavoured to shew, that in this stage of Gonorrhœa, Cowper's glands are chiefly affected, and that they afford a great proportion of all the matter that is discharged. Any inflammation which occurs along with this in the membrane of the urethra, is, for the most part, easily removed, so that the Gleet, which often succeeds, proceeds either altogether, or nearly so, from the cavities of these glands.

Gleet, proceeding from this cause, is, for the most part, easily distinguished from that which we have described as the first or most frequent variety of the disease. In this last the matter usually proceeds from within an inch, or little more, of the glans, or when parts farther back are affected, the discharge is forced off from them by very gentle pressure upon the perineum: but, in the other, the matter is, in every instance, found to proceed from the upper part of the urethra; a greater degree of
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pressure upon the perineum is necessary to force it out; and some degree of fullness, accompanied with irritation, and even pain, is experienced on the perineum being pressed upon for this purpose.

We are also assisted in the diagnosis by the history of the preceding Gonorrhœa; for it will be uniformly found that the first variety of Gleet has succeeded to the first stage of Gonorrhœa, and that the second stage of Gonorrhœa has given rise to that which we are now considering.

In the treatment of Gleet it is of importance to have this difference ascertained, for the remedies which commonly accomplish a cure in the one, are used in the other either without any advantage whatever, or even with evident proofs of doing harm. Thus, although in the first variety of Gleet we depend so much upon stimulating injections, that a cure in most instances cannot be accomplished without them; in the other, where the larger glands of the urethra are affected, they very commonly render every symptom worse

worse than it was before. They at least do so where the injection is of such a strength as to excite pain and inflammation; and if weaker than this, it may be used for an indefinite length of time, without any effect resulting from it. The glands opening into the urethra being here the seat of the disease, astringent injections, applied as we have elsewhere observed, to their excretory ducts, may produce a temporary stoppage of the discharge; but, as they do not reach the cavities of the glands, no permanent advantage can be expected from them. While, again, when an injection is used of such a strength as to excite inflammation upon the ends of these ducts, it is very apt to produce swellings in the glands themselves, which at last commonly terminate in supuration, to the great distress and disappointment both of the patient and practitioner.

Whenever it is therefore discovered with certainty, that this variety of Gleet exists, injections should be no longer employed;

ployed; or when, for the satisfaction of the patient, a farther trial of this remedy becomes necessary, such preparations only should be used as are moderately astringent.

In such circumstances bougies, and blisters to the perineum, are the most effectual remedies I have ever employed. The bougies should be of the mildest kind, such as stimulate the parts gently, without exciting inflammation. By this, and by the support which their size and form afford to the weakened parts, they often prove highly serviceable; and even when they do prove more powerfully stimulating than we may have wished or expected, they do not so readily do harm as injections; for the inflammation with which this may be attended is always accompanied with an instantaneous discharge of matter, by which the inconvenience that otherwise might result from them is very effectually prevented.

Bougies ought, for every purpose, to be as large as the capacity of the urethra will admit;

admit ; but their being of a full size is more particularly necessary in this variety of Gleet than for any other malady ; for it is chiefly by their size that they prove useful here.

In most instances of this kind it appears, in the course of a few days, whether bougies are to be of service or not ; but no permanent advantage is ever to be expected from them if they are not continued for a considerable time. When the disease has been of long duration, the bougies ought to be applied for the space of ten or twelve weeks, and not even desisted from then if the cure be not compleated. It is proper, however, to observe, that after bougies have been used for such a length of time as ought to accomplish a cure, they should from time to time be laid aside, that the effects produced by them may be discovered ; for while they are daily introduced we can never know with certainty whether any discharge which takes place is the effect of the disease, or of the irritation which they excite ; as bougies

gies can never be applied for any length of time together, not even to a sound urethra, without being found covered with matter, or with mucus in the form of matter, on their being withdrawn.

When bougies fail, a blister applied over the whole perineum sometimes proves serviceable. Whether it is by the stimulus which they give to the parts affected, or by the discharge which they excite, is uncertain; for in some an evident advantage ensues upon the first or second day from their application, and before any quantity of discharge can have occurred, while in others no effect is observed to result from them till the second, third, or perhaps, fourth blister has been applied. In a few instances, some advantage has appeared to be derived from a small portion of the blistered part being kept open with epispastic ointment, which, in two cases of much obstinacy, led me to advise the introduction of a small seton on one side of the perineum; but although this seemed likewise to lessen the discharge, the advantage

tage derived from it was neither so great nor so obvious as to compensate the very disagreeable nature of the remedy.

In very obstinate cases of this variety of Gleet, the patient will frequently be found to be of a scrophulous constitution. If the disease has not already appeared in a more evident manner in other parts of the body, it will at least often happen that the glands of the neck, and other suspicious parts, will appear to be tumefied, and that the complexion of the patient, which is commonly delicate, gives much cause to conclude that the system is not free of it.

In such circumstances, all the remedies usually employed in scrophula will, from time to time, be advised. Bark and hemlock have sometimes proved useful here; but no remedy that has yet been employed in scrophula is in any degree equal to sea-bathing.

In enumerating the different varieties of Gleet, I have proceeded in the order in which they most frequently appear. The
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next of which I shall take notice proceeds from strictures in the urethra.

In an ensuing section I shall find it necessary to enter more minutely upon the consideration of venereal strictures in the urethra: at present, therefore, it seems only requisite to say, that they are to be considered as a very frequent cause of Gleet. The spongy surface of the substance from which these strictures are produced is very apt to become tender and excoriated. A slight degree of ulceration thus takes place, which continues to give out matter while any degree of the stricture remains, and where the extent of the disease is considerable, this of itself would afford a very copious discharge; but besides this, the remora which every stricture produces, of urine and mucus between the part on which it is seated and the bladder, acts as a very powerful cause of irritation, and in this manner renders the discharge more abundant than we almost ever find it to be in Gleet, proceeding from any other cause.

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Where strictures are not suspected as the cause of the discharge, as often happens where the obstruction to the flow of urine is not remarkably great, the patient as well as the surgeon is apt to be deceived, and to proceed daily with the plan of effecting a cure by injections, balsam of copaiba, and other astringents. None of these remedies, however, have any influence, and the discharge, after many years continuance, is found to be nearly in the same state, either as bad, or perhaps worse, than at first. Of this every practitioner must have met with instances, and they always prove the source of much perplexity and embarrassment.

In every case, therefore, where Gleet resists the usual remedies, and is thus particularly obstinate, it ought to be our first object to ascertain the real state of the urethra, and to learn whether strictures are present in it or not. In some cases this will at once be known from the state of the symptoms obtained from the patient, as well as from external examination of

the urethra from the point of the penis to the fundament. This, however, will only happen in the more severe degrees of the disease. Where the obstruction is slight, it may, as we have already observed, pass unnoticed; so that in all such circumstances, and where there is any cause for doubt, the passage should be examined with a bougie, by which alone any certainty upon this point can be obtained.

When the existence of stricture is discovered, all other remedies ought at once to be laid aside, and the cure trusted entirely to bougies. Hereafter we shall have occasion to speak more particularly of bougies; at present we need only say, that they are the only remedy upon which we can depend for the removal of strictures, and that they very commonly prove effectual when duly persisted in.

When the discharge proceeds entirely from strictures, it will, for the most part, soon subside on these being removed; but when it continues more than a few days after the bougies are withdrawn, it will
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be proper to employ astringent injections in order to carry it off. Lime-water answers well: for this particular purpose, indeed, it answers better than any other form of injection I have tried, but it requires to be diluted with an equal quantity of common water.

4. The last variety of Gleet of which we have to take notice proceeds from a swelled state of the prostate gland, and succeeds, as we have already had occasion to see, to the third stage of *Gonorrhœa Virulenta*.

In treating of *Gonorrhœa* the symptoms were enumerated by which affections of the prostate gland may be discovered; but we have no certain means of knowing to what extent it may be swelled but by examination with the finger in ano.

Besides the inconveniency which occurs here from the discharge itself, and which is common to this with every variety of Gleet, there is always a good deal of uneasiness, and even pain, produced by the

swelling of this gland, which excites a more frequent desire to pass water than any other variety of the disease, together with a sensation of heat and fulness over the whole parts contiguous to the anus. The tenesmus which often takes place is also a very troublesome symptom.

Gleet, proceeding from this cause, is sometimes combined with other varieties of the disease, particularly with that which was last described. In this case the discharge has most frequently the appearance of being a mixture of pus and mucus; but when the running proceeds entirely from an affection of the prostate gland, it is thinner than purulent matter, and, although sometimes tinged of a white or yellow colour, it is more frequently of the consistence and colour of mucus. This makes it often be mistaken for a discharge of semen.

No injections are of any utility in this variety of Gleet; nor is any advantage derived from bougies. On the contrary, they are both apt to do harm, particularly

a perseverance in the use of them ; a practice which those not accustomed to this branch of business are very apt to fall into. Swellings of this gland are very commonly attended with some degree of obstruction to the passage of urine, and when this is mistaken for strictures, as often happens, bougies are immediately advised in order to remove it.

Bougies, however, never prove useful here: on the contrary, they very commonly irritate the gland to such a degree, as to excite both an increase of the pain and of the discharge.

Opiates are the remedies upon which we place most dependence. By allaying irritation, they not only keep the patient free from pain, but in doing so they tend more than any other remedy to lessen the discharge. It must, however, be acknowledged, that they act chiefly as palliatives ; but the mere prevention of pain is a point of no small importance in a disease which otherwise is apt to render the patient miserable. In speaking of affections of this

gland in the third stage of Gonorrhœa, I advised opiates to be used in clysters, instead of being taken by the mouth. They do not, in this form, so readily induce sickness, and they usually prove more effectual in relieving pain.

In several instances, where no great advantage was derived from all the quantity of laudanum that durst be given by the mouth, patients have been kept easy by a grain or two of opium dissolved in a small quantity of mucilage, and thrown, from time to time, into the rectum.

Where this disease occurs in scrophulous constitutions, an occurrence by no means uncommon, hyocyamus, cicuta, and sea-bathing, are the remedies usually employed; and although they do not often accomplish a cure where the gland is much swelled, yet they frequently afford relief; and slighter degrees of the disease have, in some instances, been removed by them entirely.

Some practitioners, as I have already had occasion to remark, give mercury in
every

every variety of Gleet, but I have never known any advantage derived from it, and where the prostate gland is affected it very commonly does harm.

As I have mentioned above, that in Gleet proceeding from strictures in the urethra, some slight degree of ulceration takes place, it may be imagined that mercury ought in such instances to prove useful, from its well known powers of healing venereal ulcers. It is not, however, found to promote the cure of these ulcerations; a circumstance that may be considered as a farther proof of the difference between Gonorrhœa Virulenta and Lues Venerea; for if affections of this kind were induced by the matter of Lues Venerea, mercury would seldom fail in curing them, while no other remedy would ever prove successful. But, instead of this, I have repeatedly found, that no advantage is derived from mercury in the treatment of this symptom, while bougies, when properly managed, very commonly prove effectual.

What we have hitherto said upon the subject of Gleet relates chiefly to the disease as it occurs in men, it being in them both more frequent, and of much more difficult treatment than it usually is in women.

We often meet with it, however, in women ; but it is proper to remark, that it is equally difficult to distinguish it from fluor albus, as in a former section we have observed Gonorrhœa to be. Referring to what was then said upon the means of distinguishing between the two diseases, we shall at present proceed shortly to observe, that in women we depend entirely for the cure of Gleet upon a proper perseverance in the use of injections. When after a due continuance of such as we reckon astringent*, if the discharge still continues, those of a stimulating nature should be employed, particularly Nos. 24 and 25.

When the disease is seated in the vagina, as is generally the case, these injections

* Vide Appendix, Nos. 18, 19, and 20.

may be thrown up with freedom; but when the discharge proceeds from the urethra they ought, on account of the contiguity of the bladder, as we had occasion to remark in a former section, to be thrown up with much caution.

In women I have sometimes found that a Gleet has proceeded from ulceration within the verge of the vagina. In such instances injections have little or no influence; and as fores of this kind are commonly connected with Lues Venerea, they can only be cured by a course of mercury.

It is proper, however, to remark, that women are liable, as men are, to excoriations from the acrimonious nature of the matter of Gonorrhœa. A discharge of matter from this cause will be most readily cured by astringent injections, or bathing the parts with lime-water, or a saturnine solution.

I have never known the real venereal stricture occur in women. Excressences form in the urethra from other causes; but

but stricture from Gonorrhœa must necessarily, in this sex, be a rare occurrence. If it is ever met with, bougies must here, as in men, be depended upon for a cure.

SECTION III.

Of Impotency from Seminal Weakness.

WE here mean by impotency a deprivation of the power of propagating the species.

This may proceed from various causes; but it is that variety of it only which is usually supposed to arise from weakness in the seminal vessels that we are now to consider.

It is an occurrence which, in young people, either in idea or reality, takes place daily; and as it proves at all times a source of much anxiety and distress, it necessarily

rily becomes a frequent object of attention to practitioners. A degree of debility inducing want of retention in the seminal vessels is, no doubt, occasionally met with; but the strong desire which Nature has wisely implanted in all men to be complete and entire, in whatever relates to the propagation of his species, is often, in early youth, the cause of much ill-founded suspicion on this point, and of circumstances respecting it being considered as real which never took place.

Thus there is nothing more common than young people supposing they are weak and debilitated, on perceiving an oozing of mucus from the urethra, or a discharge of semen when at stool. The first, however, is natural to many when in full health, and where no suspicion of weakness exists; and the latter, or a discharge of semen, must at all times be the consequence of hardened fœces compressing the vesiculæ feminales, when these vessels are full of semen. But suspicion on this point being once awake, it is often difficult,

difficult, and sometimes impossible, to remove it; insomuch that many have been rendered miserable by this alone, where no vestige of disease existed.

It is considered as one of the most certain proofs of weakness in the seminal vessels when a discharge of semen instantly succeeds to an erection, or, perhaps, to an imperfect degree of it. But this may also happen from a state of over-excitement in the other parts of generation, and I also believe that it often occurs from the seminal fluid being collected in too great quantity in the *visiculæ seminales*. I have reason indeed to imagine, as will appear in the sequel, that this is the most frequent cause of all such affections.

It may be said, if the disease exists, and the patient is rendered completely impotent, that the cause of his being so is a point of little importance. It will appear, however, that this is by no means the case; for while real impotency is in a great proportion of cases to be considered as incurable, we have it in our power, perhaps, in most
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instances of approach to this state, to accomplish a cure.

In the last section we have seen that Gleet proceeds at one time from an affection of the glands in other parts of the urethra, but in some cases that it arises from a swelling of the prostate gland. When this exists for any length of time, we find that not only the duct of the prostate gland becomes weak and relaxed, but that a loss of tone takes place in some of the contiguous parts, particularly in the excretory ducts of the vesiculæ seminales; insomuch that a great proportion of all who have long laboured under Gleet from affections of this gland, have likewise been liable, in some degree, to seminal weakness. It is well known that long continued Gleet is often the cause of Impotency. For the most part, it is supposed, that this happens from the general debility which they induce. In some instances this may be the case; but I have much reason to think that they act much more frequently by inducing a local weakness only

only in the parts destined for the reception of the semen. This I conclude to be the case from this kind of debility taking place where there is no appearance whatever of general weakness, for instances often occur in constitutions apparently firm and healthy, of such degrees of weakness in the feminal organs, that emissions take place, not merely from partial erections and lascivious ideas, but from the ordinary friction applied to the penis in riding and walking, and, in some instances, from the effect of heat alone, whether excited by wine, exercise, or sitting near a fire.

In people who have suffered much from frequent returns of Gonorrhœa, particularly where Gleet has taken place from the cause I have mentioned, I have known several instances of the semen running off by the slightest application of any of the causes just enumerated.

The local weakness thus induced in these parts by Gleet seems very much to resemble the effects of Onanism; a habit so baneful to many of our youth, that I believe

believe it to be more destructive in its consequences than a great proportion of all the diseases to which in early life they are liable. Were it to prove hurtful to those only whose self-indulgence gives rise to it, there would be less cause to regret the effects of it; but, besides rendering the parent himself miserable, it evidently entails the highest distress upon posterity, by generating languor, debility, and disease, instead of that strength of constitution, without which there can be no enjoyment.

Some, I know, have entertained a different opinion upon this point, and imagine that no bad effects are to be dreaded from the habit of which we are now speaking*. But this is so directly contrary to the experience of others, and I have had so many instances in the course of my own practice of constitutions being irretrievably ruined by indulgence in it, that I cannot avoid, in the strongest manner,

* Vide Treatise on the Venereal Disease, by John Hunter, chap. xii.

giving my opinion of it: nor does it appear that any benefit could result to society from a contrary opinion being admitted, even allowing it to be well founded; for although no immediate harm might ensue from it to the constitution, it ought to be discouraged as unnatural, and from its tending to divert the attention from an enjoyment of a much superior kind. While, therefore, there is much cause to consider the practice as highly dangerous to all who follow it, and while such a propensity prevails towards it in that early age when boys cannot form a judgment of its deleterious tendency, I consider it as incumbent on those who write upon it to paint it and the baneful effects which result from it in their true and proper colours.

In the treatment of this variety of Impotency, whether it has been induced by Onanism, or whether it be the consequence of Gleet, it is proper to distinguish it into two stages. The one, so far as I have seen, being of a nature that does not admit of any certain remedy, while the other
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may, in most instances, be completely cured. Many consider it so certainly as incurable that the patient is led to despair from the first approach of it, and the opinion is often unfortunately realized merely from the cause I have mentioned, our not distinguishing the two stages of the disease, and allowing that which I suppose may be easily removed, to proceed without any attempt for this purpose, to that state of it, which, in most instances, may be considered as incurable.

Practitioners are frequently applied to by young men labouring under what I shall term the first stage of Gleet; who, finding that a seminal discharge takes place from the slightest causes, perhaps merely from their being in company with women; from lascivious dreams; or from the parts of generation being in any degree overheated, begin to be afraid that they shall never again have the power of retention, and conclude therefore that they cannot with propriety enter into a matrimonial connection. We often find that they ad-

mit Onanism to have been the primary cause of their distress, although, for a great length of time, perhaps for a number of years, they assert, and with no reason on our part to doubt them, that they have been entirely out of the practice of it.

In this situation, whatever may be the appearance and habit of body of the patient, strengthening astringent remedies are prescribed, such as bark, steel, balsam of copaiba, cold bathing, &c. ; and whatever are his views, he is advised to avoid matrimony and all venereal intercourses.

In a great proportion of cases, however, I am convinced that this practice and this advice are erroneous. Following the bulk of practitioners, I easily adopted them ; but no good resulting from them I have long since relinquished them, and I have seldom failed of success by advising measures of an opposite nature.

In a great proportion of all that are injured by this destructive habit, a morbid irritability of the organs of generation seems to be excited. By this a greater
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quantity of the seminal fluid is secreted than the vesiculæ seminales can retain : in consequence of which, it either bursts out during nocturnal dreams, or is easily excited to flow by the application of any of the causes above-mentioned.

Even after the habit has been long left off I have known the effects of it continue in a very distressful degree, and I conclude that they proceed chiefly from too plentiful a secretion of semen, from the nature of the remedy which in most instances has proved successful.

Instead of advising abstinence from women, I always inculcate as frequent connection as natural desires seem to require ; and when matrimony is in view, instead of being afraid of it, as often happens with this class of patients, from a fear of their not performing the functions of it properly, I uniformly hold it forth as the most certain remedy.

The idea of inability is so strongly prevalent with many, that they are with difficulty prevailed upon to make the at-

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tempt ;

tempt; but the effects of it are so certain, that with patients in such circumstances as we are now considering, it may always be advised with the greatest confidence of success. Nor is the assistance of other remedies required in this plan of cure; at least in various instances, patients, who, for many years together had been almost constantly taking such remedies as they judged to be of an invigorating nature, without any advantage resulting from them, and who therefore were induced to consider their complaints as incurable, have, on laying all of these aside, become completely and entirely well in the space of a few weeks after marriage. The irritability of the organs was thus diminished; the morbid increase of the secretion was removed; and the seminal receptacles, not being over distended, were soon found to be endowed with a sufficient degree of retention.

This being a very frequent variety of the disease, I can speak of it, and of the remedies employed in it, with some degree
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of certainty; and I can with confidence say, that none of those commonly advised have ever, in the course of my observation, had any obvious influence; while the plan I have pointed out very generally surpasses in its effects all that the patient could hope from it.

When a swelled state of the prostate gland is connected, as I have sometimes found, with this variety of the disease, it necessarily renders the event more doubtful, and the effect, even of this and every other remedy, more uncertain. But even here the course I have advised will sometimes prove successful. It will not remove any affection of the gland, but where the disease of that organ is not in a great degree, it proves equally effectual in removing the other, as if the gland was entirely sound; and this obviates one of the greatest sources of misery to the patient.

It may be said that while this, or any other variety of Gleet exists, the remedy I have pointed out cannot with any propriety be advised, from the risk of com-

municating infection. We know, however, that real Gleet does not communicate infection to others; and the means of distinguishing it from Gonorrhœa are by no means equivocal. Many instances have fallen within my own observation, and others must often meet with it, of this being clearly the case. I know, at this time, several instances of men who have been married for many years, who, during the whole period, have laboured under different varieties of Gleet, and who have never communicated the disease either to their wives or children. Gleet in men seems to be equally incapable with fluor albus in women to communicate infection.

In that stage of the disease which we have just been considering, a cure, we observe, may, perhaps, in every instance, be accomplished. But when it has been of such duration as to form what may more properly be termed feminal weakness, and what I shall term the second stage of the disease, a very different prospect presents itself.

itself. The patient may even, in very advanced periods of the disease, derive advantage from a well-regulated diet and other circumstances, by which his situation will be rendered much more comfortable than it otherwise would be; but in this situation a complete removal of the disease is scarcely to be expected: at least little dependence is to be placed upon the remedies usually employed for this purpose.

This very distressful stage of seminal weakness is often the consequence of Onanism long persisted in; and it is, as we have remarked, the frequent consequence of Gonorrhœa and Gleet. In all such cases the disease seems to proceed from real weakness, or debility in the excretory ducts of the vesiculæ feminales; for it commonly happens where the whole system is much relaxed and emaciated; where there is therefore no cause to imagine that it can arise from too plentiful a formation of semen; and of which, indeed, we often meet with a very decisive proof,

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from

from a constant mucous-kind of oozing being perceived in the urethra, while no ordinary cause of excitement is capable of producing any regular discharge or emission of semen.

In this situation a variety of remedies are employed, chiefly with a view to restore and invigorate the tone of the weakened parts; such as bark, steel, balsamum copaiba, and cold bathing. At other times, where the disease is supposed to proceed from a deficiency of semen, provocatives are prescribed; such as high seasoned foods, all the terebinthinate balsams, and cantharides. But although I have had many opportunities of observing a complete trial of these, I never knew any advantage derived from them. The only course, which in such circumstances I ever knew prove useful, was such as merely tended to restore the patient to his usual state of health. If Onanism has induced the disease, nothing will afford even the chance of a recovery till this is left off. Whatever may have been the cause of it, he ought
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to be put upon a nourishing diet ; and he should live in an elevated, dry situation, Sea-bathing should be advised ; and costiveness, with every thing that might tend to irritate the parts chiefly affected, should be avoided.

With a view to lessen that degree of irritability with which this disease is usually connected, opiates have been advised ; but although I have often given them a full trial, I never knew any real advantage obtained from them. On the contrary, they have often appeared to do harm ; for although they procure rest, yet the sleep which they give is always disturbed ; the patient awakes in a state of more anxiety and distress than he experienced on going to bed ; and when opiates are habitually used, costiveness can scarcely be prevented but by means of remedies which in this situation ought not to be given.

Hemlock is often used here ; but I have never known any obvious advantage derived from it. Hyocyamus, by acting as an anodyne, while it does not produce
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costiveness, has in different instances appeared to prove serviceable. One grain of the extract may be given at first, and the dose increased in a gradual manner to three, five, six, eight, and even ten grains.

Conceiving, from some circumstances connected with the disease, as well as from many of the symptoms which ensue from it, that it may in some instances be of the same nature with paralysis, I have, in several cases, advised electricity, and in one or two of these it appeared to prove serviceable, but never so decidedly as to enable me to speak of it with confidence.

SECTION IV,

Of Obstructions in the Urethra from Gonorrhœa Virulenta.

WHEN speaking of Gleet we had occasion to observe that it is often the consequence of Obstructions in the Urethra. But Gleet, although the cause of some inconvenience and distress, is by no means the symptom of most importance with which Obstructions are accompanied. Strictures may take place in a certain extent, without giving much uneasiness, but whenever they arrive at such a height as to impede the flow of urine, they prove always the cause of distress and misery to the patient, and of much embarrassment to the practitioner.

Obstructions proceeding from Gonorrhœa Virulenta may be reduced to four general

general heads; tumours in the substance of the urethra and contiguous parts; spasmodic affections of the urethra; caruncles, or fleshy excrescences, in the urethra; and strictures, properly so called.

§ 2.

*Of Tumours in the Substance of the Urethra
and contiguous Parts.*

WE have already had occasion to speak of Tumours, or swellings of the prostate gland, of swellings of Cowper's glands, and of the other smaller glands of the urethra. All of these produce obstruction to the flow of urine whenever they become of such a size as to diminish, in any degree, the magnitude of that canal.

Referring to what has already been said upon this part of our subject, I have at present to observe, that in the commencement of all Tumours in these parts, we ought, by every method in our power, to endeavour

endeavour to remove them by discussion, for which purpose local and general blood-letting are the remedies chiefly to be depended on; and as these, when carried a sufficient length, and when assisted by a cooling regimen, and the external use of cold saturnine applications, seldom fail in removing them, they should always be persisted in as long as there is the least chance of their proving serviceable. For although tumours in this situation are often easily removed after suppuration has taken place, by the matter being freely discharged, and the sore treated in the usual way, yet, before arriving at this size, a good deal of distress always occurs from them, and, in some instances, the sores heal with difficulty, while in others the matter bursts into the urethra, where it continues often during the life of the patient to excite a great deal of distress.

In others again it bursts into the scrotum, and from thence into the surrounding cellular substance, and openings forming in consequence of this, commonly between
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tween the scrotum and anus, a very troublesome disease is thus produced, termed fistula in perineo*.

It is therefore obvious that it is much for the advantage of the patient that all tumours of this kind should be removed by dissection; but when our endeavours for this purpose do not succeed, and when suppuration takes place, we have it often in our power to prevent many of the bad consequences which otherwise are apt to ensue. By opening such tumours immediately on matter being perceived in them we prevent the risk of their bursting into the scrotum and urethra, so that in this situation we ought never to wait till they are so fully matured as otherwise might be proper: and when once they have come so far as to render it proper to discharge the matter, it ought to be done, as we have formerly observed, by making an opening the whole length of the tumour. This prevents the matter from lodging, and from insinuating into the contiguous

* For the treatment of this vide System of Surgery, chapter xv.

parts, while the fores which ensue heal more kindly than they usually do when smaller openings have been made.

Among other consequences which sometimes occur from matter bursting from abscesses in this situation into the contiguous parts, it is proper to mention that the most distressful effects occur from its finding access to the corpus cavernosum of the penis. It usually spreads suddenly over the whole substance of the penis; small openings take place in different parts of the swelling, at which the matter is discharged; and these are always very difficult to heal: or, if the matter does not find a vent in this manner, it either bursts into the urethra, or the surrounding parts are apt to mortify.

When mortification occurs in this situation it either soon proves fatal, or terminates in the entire loss of the penis; for a stop is seldom put to the disease till all the parts surrounding the urethra are destroyed, when amputation of the remainder becomes unavoidable. Indeed the hæmorrhagy

rhagy which is apt to occur from deep-seated mortification of the penis is commonly of itself a sufficient motive for amputation being advised, for we can seldom put an effectual stop to the discharge till the mortified parts are all removed.

For preventing mortification in this situation from spreading, opium has been recommended. I have certainly observed it prove useful in gangrene, both in these parts and in others ; but more dependence is for the most part to be placed upon a plentiful use of bark. Whether or not opiates act in the cure of gangrene as antiseptics, is not, or, perhaps, cannot be ascertained. I rather believe that they do not ; and I am inclined to think that they prove serviceable only by allaying irritation. In this manner they may be employed with advantage wherever gangrene appears to be the consequence of a high degree of inflammation. By lessening or removing pain they may diminish the cause of exertion in the vessels of the part affected, and may thus tend to prevent
morti-

mortification from extending so far as it otherwise might do; but I have never known them prove useful where the disease seemed to depend upon loss of tone, either of the part itself, or of the constitution.

§ 2.

Of Spasmodic Obstructions of the Urethra.

IRRITATION of the Urethra, from whatever cause it proceeds, has an evident effect in lessening the diameter of the passage. Hence, in cases of stone in the bladder, the irritation, and consequent contraction of the urethra, is sometimes so great that a staff, even of a moderate size, cannot be introduced. Stones in the kidney have frequently the same effect. Nay, I have known this contraction of the urethra induced by sand passing along the ureters. In like manner the irritation produced in the urethra by Gonorrhœa, is in some cases so great as to excite con-

traction of the passage in a very distressful degree. I have known the urine so completely obstructed by this alone, as to give cause to suspect that strictures were formed of the most alarming nature; in which neither staff, catheter, nor bougie, could be introduced, but with more force than can ever with safety be applied.

We judge that obstruction proceeds from this cause, when at one time it occurs in a severe degree, and soon thereafter, perhaps in the space of a few hours, it appears to be entirely or nearly gone. Of this I have met with various instances; in which, from the anxiety of the patient, and from suspicion of a more inveterate kind of stricture, repeated attempts have been made in vain to pass a bougie, and in which the stoppage has gone off entirely upon the exhibition of a dose of laudanum, or rubbing the perineum with anodyne balsam.

As the urethra itself does not appear to be muscular, as a small portion of it only can be compressed by the muscles of the penis,

penis, and as the obstruction of which we are now speaking occurs in parts of the passage where these muscles do not exist, it has been imagined that this temporary accession of stricture must be owing to some other cause. It may perhaps happen that the violent irritation excited by chordee may in some instances produce such effusion into the cellular parts of the penis as may compress the urethra; and that this may soon be removed by absorption, on the irritation by which it was produced being taken away. But although this may be the case in a few instances, I am convinced that it is not a frequent occurrence, and that the urethra itself is endowed with a contractile power, by which, for the most part, this kind of obstruction is produced.

Were it to proceed from any kind of effusion compressing the urethra, the tumefaction thus produced would be obvious. Partial circumscribed tumours would either be discovered in the course of the urethra, or the whole body of the penis,

or a considerable part of it, would be swelled. We do not find, however, that this is apt to happen; at least, in most cases of this kind no tumefaction of the penis is perceptible.

This kind of spasm or cramp occurs occasionally in every part of the urethra. I have met with it within an inch of the extremity of the glans, but for the most part it happens behind the scrotum, or nearer the prostate gland, in the membranous part of the passage.

In the treatment of Obstruction in the Urethra it is a matter of the first importance to determine the cause by which it is produced. It is particularly necessary to distinguish between obstruction arising from spasm, and that which proceeds from stricture of the passage. In the latter, bougies, as we shall afterwards see, are almost the only remedies upon which we can depend, while, in cases of spasm, they very commonly do harm. In the one they remove the disease by acting as wedges; in the other they add to the violence of the contraction by increasing the irrita-

irritability by which it was at first excited.

As the degree of obstruction produced by spasm alone is, in some instances, equal to what usually occurs from the most obstinate kind of stricture, it is only from an exact account of the rise and progress of the disease by which we can judge of the difference.

When the flow of urine has at first been perceived to be slightly obstructed, and when this has gradually become worse, without ever being in any instance materially better, there will be much cause to imagine that it proceeds from a cause of a fixed nature: while, on the contrary, however complete an obstruction may be, if it came on suddenly, and if it frequently becomes quickly well without any obvious reason, there will be no cause to doubt of its proceeding from spasm.

We find too, in obstruction proceeding from causes of a more fixed nature, that some pain is always discovered at one or more fixed points. In some cases a degree of hardness is perceived on the urethra

being pressed at these points; while in others, although nothing can be discovered on external pressure, the patient feels a degree of heat and pain, as if the parts affected were excoriated, or even ulcerated. Besides, in real stricture, a discharge of matter very universally takes place from the urethra; forming, as we have already had occasion to see, a very frequent cause of Gleet. But in obstruction proceeding from spasm, any pain which occurs in the urethra does not proceed from one point. It appears to be more diffused; and is seldom in any distressful degree, if it be not by the stoppage which it gives to the flow of urine. No particular spot is discovered to be hard or sore upon pressure, and a discharge of matter does not necessarily take place in it.

Spasm, indeed, may be accompanied with a flow of matter from the urethra. This will always happen where Gonorrhœa or Gleet have previously existed; but it will never, on enquiry, be found to be the cause of the discharge.

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The remedies to be employed for the removal of this variety of obstruction are, warm emollients, anodynes, blood-letting, blisters, and electricity. Bougies, in certain circumstances, may be also employed.

Rubbing the parts affected, whether the perineum, or more anterior parts of the penis with warm oil, proves sometimes useful. Oil, strongly impregnated with camphor, and Goulard's form of the unguentum saturninum, when applied warm to the parts affected, also tend to remove this cause of obstruction. I have sometimes known it instantaneously removed by fomenting the perineum with a decoction of chamomile flowers or althea, or by the application of a bladder filled with warm water.

The common anodyne balsam makes an useful application here. The parts in which the spasm is seated should not only be rubbed with it, but pledgets immersed in it should be kept constantly applied to them. But one of the most powerful antispasmodics among external applications

is, a mixture composed of three parts of laudanum and one of æther.

Frequently, however, little or no advantage is derived from the external application of anodynes; while opium, given internally, is productive of the best effects. Forty drops of laudanum, given by the mouth, will often remove a spasm of the urethra that has resisted every variety of this remedy applied to the skin; and when thrown up the rectum, in the form of injection, it proves still more effectual in removing pain, irritation, and spasm about the anus, and in the organs of urine and generation, than when received into the stomach.

Whether this may proceed from the remedy getting more nearly into contact with the nerves of the diseased parts, or whatever may be the cause of it, is perhaps difficult to determine; but, from much experience of their effects, I am convinced, that in all such affections, opiates prove most powerful when given in this manner,

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In plethoric constitutions blood-letting is often the most effectual remedy, not only in carrying off the spasm which presently subsists, but in preventing returns of it in future. Besides the discharge of blood from the arm in quantities proportioned to the strength of the patient, leeches should be applied along the course of the affected parts, and they seldom fail where the constitution can support the evacuation, of giving very effectual relief.

From an idea of spasmodic affections proceeding in most instances from what is termed a weakness of nerves, and from a dread which very universally prevails, of all such affections being rendered worse by blood-letting, this is a remedy we find very rarely employed. But it is proper here, as well as in similar affections of other parts, to observe, that morbid irritability may be excited by causes of a very opposite nature. It sometimes takes place where the constitution is relaxed and reduced; and, in such circumstances, evacuations of every kind very commonly do harm.

harm. But it more frequently happens from a state of plethora, in which blood-letting proves the most certain remedy, and where opiates, warm bathing, and other antispasmodics are often used for a great length of time, without any effect resulting from them.

We find from experience, that a stimulus applied to the skin proves often useful in relieving pain and spasm, in parts that are very deeply seated; and upon trial, the same remedies are sometimes found to remove similar affections of the urethra. Obstructions of this kind have, in different instances, been relieved by the application of volatile liniment, a strong impregnation of oil with volatile alkali, to the parts affected. A blister, applied over the perineum, has in different instances carried off obstructions of the urethra; and in some cases where blisters failed, the disease has been completely removed by the application of a warm plaster.

In such cases blisters do not seem to act so much by the evacuation which they
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produce, as by the irritation which they excite; for it often happens that the pain and spasm are removed as soon as the skin becomes in any degree uneasy, and long before vesications can be formed. Hence, a warm plaster, which does not contain such a quantity of cantharides as to render it capable of acting as a blister, by keeping up a more continued stimulus than blisters, proves, in some instances, more effectual.

Electricity has sometimes proved useful in removing spasm of the urethra: but it requires to be managed with caution, otherwise it is apt to add to the violence of the disease. In plethoric habits it always does mischief, and ought never to be advised in these till blood-letting has been premised.

I have had occasion already to remark, that in this variety of obstruction, bougies are very apt to do harm. This proceeds from their being pushed with violence, when the parts, from being under some high degree of irritation, are in a state of
strong

strong contraction. This ought never, therefore, to be done; for while the parts remain in this situation we seldom succeed; or if we do get the bougie passed, it is always from the use of more violence than ought to be employed.

But bougies prove highly serviceable, even in Spasmodic Obstructions of the Urethra, when the violence of the disease is so far removed that they can be introduced with ease, and without exciting irritation: so that, whenever we find this can be accomplished, whether the spasm has been lessened by the use of emollients, anodynes, blood-letting, or any other remedy, it ought always to be advised. Besides the present relief which it affords, by removing any degree of the obstruction which may remain, it tends more effectually than any other remedy to prevent a return of it. This is particularly the case where spasm is conjoined, as sometimes happens, with the more fixed kind of obstruction, which we are presently to proceed to consider. When this
takes

takes place all our other remedies are to be considered merely as preparative to the use of bougies, which, in such circumstances, are alone to be depended on for a cure. It must always be remembered, however, that bougies are only admissible when they can be introduced and retained in the passage without exciting much uneasiness.

In all diseases of the genitals, the state of the intestines requires particular attention. So much sympathy subsists between these parts that in people liable to obstruction in the urethra, I have known a severe fit of the disease induced by a costive stool. Neither is much purging necessary or proper. The bowels should be kept in such a state as to prevent irritation, as far as it can be done, in the rectum and contiguous parts.

§ 3.

Of Obstruction in the Urethra from Fleshy Excrecences, or Caruncles.

OBSTRUCTION to the passage of urine has long been considered as one of the most distressful, as it is one of the most frequent consequences of Clap; and Caruncles, Fleshy Excrecences, or Carnofities, as they are sometimes termed, are mentioned by all the older writers upon this subject, as the most frequent cause of it.

This idea naturally arose from their perceiving that warty substances were sometimes formed within the urethra, near to its extremity, similar in appearance to those which often occur upon the prepuce and glans; and not prosecuting the subject by opening the parts after death, they were led to suppose that the more deep-seated obstructions were all of a similar nature.

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So univerſally did this opinion prevail, and it was ſo ſtrongly aſſerted in books, that although it was long ago, by ſome individuals, particularly by Saviard and Dionis, ſuppoſed to be ill-founded, yet even in our times it has been very generally admitted. This is ſo far the caſe, that in common converſation upon this ſubject, Caruncles are uſually conſidered as the moſt frequent cauſe of all ſuch obſtructions.

It is now, however, very certainly known that this cauſe of obſtruction is an uncommon occurrence in the more remote parts of the urethra. Of late years this has become a very frequent object of anatomical investigation; and I have reaſon to ſuppoſe, from all that I have yet heard, as well as from the reſult of my own enquiries, that it ſeldom exiſts farther up the urethra than half an inch or ſo, from the point of the glans. Warty excreſcences are not unfrequently found towards the orifice of the urethra; but I have ſeldom ſeen them, even in this ſituation, where
they

they did not likewise prevail upon the glans and prepuce.

The obstruction to the flow of urine from this cause is seldom considerable; but it always occasions much anxiety to the patient, from a fear which he is apt to entertain of its becoming worse.

When seated just in the opening of the urethra, as sometimes happens, I have, in different instances, been able to remove them with scissars, and with small ligatures passed round them; but they are seldom so situated as to admit of our taking them off in this manner. Neither are we at liberty to destroy them by the application of escharotics, the irritability of the urethra rendering this a very hazardous attempt.

In all such cases we place our chief dependence upon bougies; and, when duly persisted in, they seldom fail in effecting a cure.

Some difference of opinion has arisen as to the manner in which bougies act in removing these excrescences. In strictures
of

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of a different kind there is no cauſe for doubt upon this point, as they evidently act entirely as wedges, and prove uſeful in proportion to the extent of mechanical preſſure which they afford; but in the cure of Caruncles they have been ſuppoſed to act chiefly by inducing ſuppuration upon the diſeaſed parts, and diſſolving them in this manner.

It is obvious, however, that in the cure of theſe excreſcences, there is ſomething farther neceſſary than the formation of matter. Indeed inſtances occur daily of their being conſtantly immerſed in matter, ſometimes proceeding from their own ſurfaces, and at other times from the contiguous parts, without their being diminiſhed. I rather conceive that bougies, even in this variety of obſtruction, operate partly by mechanical preſſure, and partly by exciting inflammation in the excreſcences. We ſhall hereafter have occaſion to ſee, that ſome of the remedies employed for the removal of warts in other parts prove chiefly uſeful by making them inflame; and as bou-

gies are well calculated for this purpose, I think it probable, that while they evidently answer a good purpose by the pressure which they afford, they prove likewise serviceable by exciting over these excrescences that slight degree of inflammation, which, in the treatment of common venereal warts, very commonly makes them drop off.

§ 4.

Of Obstruction in the Urethra from Strictures, properly so called; of Bougies, and Fistulæ in Perineo.

IN the more fixed kinds of Obstruction, proceeding from Gonorrhœa, the diameter of the Urethra is lessened in two different ways. For the most part it is diminished by a thickening taking place at some particular point in the membrane of the passage itself, or rather in the corpus spongiosum urethræ, in a similar manner to what frequently happens in the membrane

brane of the nose in cases of catarrh. At other times the urethra is drawn together, or contracted, as if a cord was tied round it, without any other disease being perceptible.

In some cases, again, these two affections are conjoined; and we find, in the same person, the diameter of the passage lessened in one part by a mere contraction, and in another, by a swelling and thickening in the substance of the urethra itself.

Every part of the passage is liable to strictures; but they are more frequent behind and immediately above the scrotum, than in any other part. In some cases a single stricture only takes place; but when the disease has subsided for a length of time, we very commonly find the passage contracted in different parts.

Where the urethra is merely drawn together, the disease seldom extends, at any one part, above the eighth part of an inch, but where the stoppage proceeds from a swelling of the substance of the urethra it-

self, it sometimes extends to the length of an inch.

From whatever cause the stricture may proceed, we commonly find that the urethra is affected equally all round; but it is very properly remarked by Mr. Hunter, that, in some cases, the disease seems to be fixed entirely on one side of the passage, in which case the canal is thrown over to the opposite side.

This seems to happen only where the obstruction is produced by swelling of the urethra, and not where it proceeds solely from contraction.

Where this unequal diminution of the canal takes place, even in one part only, it is obvious that it must add greatly to the difficulty of introducing bougies; and where more than one affection of this kind occurs, if they be not exactly opposite to one another, a kind of twisting of the passage takes place, which renders the passing a bougie impracticable. It must, however, be admitted, that instances of this are rare.

It

It is somewhat remarkable that the formation of strictures is often so gradual, that a patient is not sensible of their taking place till the disease has been of long continuance. Being seldom attended with pain till the flow of urine is much impeded, any partial degree of it passes without notice, by which they are apt to be rendered much more fixed and permanent than otherwise they would be. The patient, indeed, has seldom any suspicion of strictures, till the surgeon, for his own satisfaction, where Gleet continues more obstinate than usual, proposes to introduce a bougie. Gonorrhœa having given rise to the Gleet, any difficulty that occurs to the passage of the urine is considered to arise from the same cause; and thus a great length of time often elapses before any such examination is made as can with certainty lead to a discovery.

This proves often, in its consequences, highly distressful, and ought therefore to be as much as possible guarded against; for strictures, by long continuance, be-

come much more firm, as well as more extensive, than they were at first, by which they become much more difficult to cure. Cases which at first would have yielded almost to the first attempt with bougies, are, by delay, often rendered so obstinate that nothing will remove them but the most exact application of bougies being continued for a great length of time.

In all cases, therefore, in which there is the least cause to suspect that strictures may exist, an examination should be made with bougies. But as patients themselves are apt to be deceived upon this point, practitioners ought, in every instance, to lead their attention towards it. In different parts of this work we shall have occasion to see that Gleet is frequently kept up by strictures; so that whenever a running becomes in any unusual degree obstinate, if there be not some other evident cause for it, a trial with a bougie should be proposed. This, however, is seldom attended to; by which much unnecessary trouble, as well as loss of character, falls upon

upon the practitioner, while the patient is made to suffer a great deal of misery which might have been prevented.

We have already had occasion to remark that the strictures of which we are now speaking are consequences of Gonorrhœa: but in what manner they are produced by Gonorrhœa is perhaps difficult to explain. They have been attributed chiefly to ulcers induced by the disease, and to inflammation.

At one period I was induced to suppose, chiefly from the information I had from books, that strictures were in most instances produced by ulcers. But from more frequent opportunities of observing the seat of Gonorrhœa after death, I am now convinced that ulcers very seldom take place here, by no means so frequently as strictures, the disease they are supposed to produce. It sometimes indeed happens, that the membrane of the urethra covering strictures, is found in a state of tenderness, or of excoriation, but not completely ulcerated. This appears too to be

the effect of the disease rather than the cause of it. It seems to proceed, in some degree, from the tumefaction of the membrane of the urethra, which often occurs in strictures, and in some measure from the acrimony of the matter which these very strictures produce.

When ulcers are met with in Gonorrhœa, they are in most instances, I believe, produced by the rupture of one or more blood vessels. If it be not at the very point of the urethra, they never proceed from the matter of Lues Venerea. Now we can scarcely imagine that any ulcer which the rupture of a blood-vessel in the urethra could probably produce, would be of such depth or magnitude as to be attended with any important consequence of this kind. Neither are hæmorrhages from the urethra frequent; nor have I found that strictures have been particularly apt to happen, even where hæmorrhages have taken place in an alarming degree.

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I consider it, therefore, as decided, that strictures in the urethra seldom or never proceed from ulcers. Inflammation, when violent, may certainly tend to produce them; and I think several instances have fallen within my own observation where this actually happened. I do not suppose, however, that this is such a frequent cause of strictures as is commonly imagined, nor do I agree with those who think that injections often produce them.

As it was observed that strictures were, in some instances, induced by inflammation, and injections being supposed, by those who are prejudiced against them, very apt to inflame the urethra, it was long ago asserted, and has since by many been believed, that they tend more frequently than any other cause, to produce strictures. This, indeed, is held forth as the most important objection to the use of injections, and were it in any degree well-founded, I admit that it would be a strong reason for laying this remedy entirely aside: for however desirous it may be to have

have the running in Gonorrhœa quickly carried off, and however efficacious injections may be, no practitioner would advise them were it to be with the risk of inducing such a formidable disease as strictures often are.

Where strong stimulating injections are unguardedly used, such a degree of inflammation may thus be induced as may be productive of the most obstinate strictures. But this is not the fault of the remedy, as I have elsewhere observed, being entirely the effect of an improper application of it. We might with equal propriety condemn the use of some of our most effectual and safest medicines, merely from an over-dose having done harm.

Instead of injections being a frequent cause of strictures, I have much reason to think that they are more effectual than any other remedy in preventing them. Although I have admitted that strictures are sometimes produced by severe degrees of inflammation, I do not consider this as a frequent occurrence. Strictures I conceive

ceive to be most frequently the consequence of a state directly the reverse of inflammation. In a great proportion of cases they will be found to take place, where, either from no injection being used, or from some other cause, the discharge has gone on to a very unusual length, where all symptoms of inflammation were gone long before, and where nothing but a Gleet remained. At least this has been very generally the result of my observation, and, I believe, it will be admitted by all who have paid attention to the point in question. I therefore conclude from this, as well as from the appearances which these parts exhibit on dissection, that this variety of obstruction proceeds most frequently from a state of morbid relaxation or debility, induced in these parts of the membrane of the urethra upon which the inflammation at first fixes with most violence, and from which the subsequent discharge is in a great measure produced.

Where stricture succeeds immediately to inflammation, it appears to be that variety

riety of it in which the urethra is compressed, or tied, as it were, with a cord; but where it does not appear till the inflammation subsides, and the discharge has been of long duration, the substance of the urethra is found, at those parts where the strictures exist, spongy, soft, and prominent, bearing every mark of having compleatly lost its tone.

The existence of this variety of stricture being ascertained, and it will not be confounded with any other disease where the observations contained in the preceding parts of this section are kept in view, our next object is to fix upon the method of cure.

While the opinion prevailed of strictures being most frequently produced by ulcers in the urethra, as this led to the suspicion of their being connected with Lues Venerea, mercury was advised in almost every instance. Mercurial ointment was regularly rubbed upon the seat of the disease, in order to dissolve the cause of the obstruction, and the patient was put
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under a salivation, with a view to the safety of his constitution.

As this was the prevailing practice of our best surgeons, both here and in other parts of Europe, when I entered upon business, I was necessarily led to adopt it; but later experience having shewn that mercury is never necessary in the cure of strictures, I have now for many years past laid it altogether aside. Nay, I readily own that I never knew any advantage derived from it, while in many instances, when long persisted in, it evidently did harm.

It will not be imagined, that during this late period of time, mercury was ever alone depended upon for the removal of strictures in the urethra. Bougies were then very generally employed; but mercury, for the reason I have mentioned, was always advised along with them.

Bougies had long been known to practitioners, but they were so coarsely formed, and their application so little understood, that scarcely any advantage was derived from them, till Mr. Daran, about
fifty

fifty years ago; brought them into more general notice. By forming them with care, and introducing them with address, Mr. Daran had the credit of giving us the only remedy upon which we can place any dependence for the cure of strictures. At least we are certainly in a great measure indebted to him for bringing them into general use.

It is true that Mr. Daran attributed virtues to his bougies which they did not possess. Being much interested in the sale of them, he wished to throw a mystery over their composition. They acted chiefly, he said, by their suppurative quality: in consequence of which, and by the great discharge of matter which they produced, tumours, and other causes of obstruction in the urethra, were, he alledged, dissolved by them, which could never otherwise have been removed. The confidence with which this was asserted, by a man of Mr. Daran's experience, and the considerable discharge of purulent-like matter which usually accompanies the use of bougies, gave weight to.

to an opinion which at last came to be very generally adopted.

We now know, however, that it is not by exciting a discharge of matter that bougies act in the cure of strictures. Even the mildest bougie we can employ, when kept in the urethra for an hour or two, is covered with a kind of matter on being withdrawn; but this happens as readily where the urethra is sound as when it is obstructed in various places, and it proceeds entirely from the natural mucus of the passage being increased in quantity, and somewhat altered in appearance, by the irritation excited by the bougie.

Even admitting the obstructed parts to be more particularly acted upon, and a greater discharge of matter excited from them than from the other parts of the urethra, and which Mr. Daran asserted to be the case under his management of the bougie, still this would not account for the removal of excrescences; for we know, from daily observation, in other parts of the body, that the whole surface of excrescences

ces of a similar nature to those which Mr. Daran supposes to take place here, may be kept in a state of complete ulceration, and a great quantity of matter discharged from them for a great length of time, without any diminution of their size.

Bougies, in the cure of these strictures, seem to act solely by pressure, and the support which they afford to the diseased parts. If a bougie, of sufficient firmness, exactly or nearly the size of the urethra in its contracted state, be passed at first, and others of a larger size afterwards introduced, we know from experience, that if done with caution, no harm will ensue, and that the stricture for which it was employed will thus, in a gradual manner, be removed, merely by the pressure of the bougie.

In this view, our chief object in the forming of bougies should be to give them a firmness sufficient to afford support to the parts which we wish to compress, and a smoothness and flexibility which will admit of their being introduced and retained

ed in the urethra with the greatest possible ease.

Numbers 34, 35, 36, and 37, in the Appendix, contain prescriptions for bougies of different colours and consistences, with some directions for the method of preparing them; but the exact formation of bougies being a matter of the first importance, and this being only to be acquired by extensive experience, it is better for surgeons to procure them from those whose sole profession it is to make them, than to attempt to form them themselves.

Besides the forms of plasters mentioned in these prescriptions, other articles have been employed for the construction of bougies, particularly cat-gut and refina elastica. Of these the latter is by much the best, and for all the smaller kinds of bougies I now find it to be preferable to the best bougies of the common kind. Even when of the smallest size it can be made of such a degree of firmness as to admit of being pushed with considerable force, which is not the case with the

smaller kinds of common bougies, which are apt to bend, and to become twisted, although introduced with much care and attention.

The great expence of bougies of this kind has hitherto prevented them from being so generally known as they ought to be: besides, they were at first made so soft that they nearly dissolved in the urethra on being allowed to remain in it for the space of an hour or two; but this fault is now so entirely removed, that I have known them remain in the passage seven or eight hours at once, and yet as firm on being withdrawn as when first introduced. This renders it a valuable article, not only for bougies, but flexible catheters.

This resin has one very essential advantage over every composition that has yet been employed for bougies. It does not crack or break while in the urethra, however frequently it may be introduced. When the common bougies are prepared with much attention, and the composition
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of which they are formed is not too much boiled, they may sometimes be used two or three times with safety; but, in most instances, they cannot with propriety be introduced more than once. Nay, many of them, on remaining an hour or two in the passage, are so much cracked as to excite a great deal of irritation and pain even on their first introduction, insomuch that I have met with different instances where patients had been deterred by this cause alone from using bougies, the irritation which they excited being so great as to be perfectly insupportable; while, on having recourse to those formed of resina elastica, they were found to create no kind of uneasiness.

These bougies are formed of fine silk, or linen, dipped in the resin dissolved in æther. They were originally invented by Mr. Thedn, of Berlin, and now are made by different artists in Paris. There is cause to regret that the art of forming them is as yet confined to a very few, so that our

supplies have hitherto been both scarce and uncertain.

In the use of bougies the following are the points which particularly require attention :

1. They should be provided in such numbers, and of such variety of sizes, that there may be no doubt of as many being at hand as in any case may be requisite.

2. On proceeding to introduce the first bougie, care should be taken to fix upon one of such a size as will probably pass without exciting much pain. It is better at first to have it rather smaller than might be made to pass, than be afterwards under the necessity of withdrawing it. Of this we may in general judge by the size of stream in which the urine is observed to flow. It is often indeed found to be forked, and sometimes flattened, owing to the form and nature of the stricture, but, with some attention to this circumstance, we may, for the

the most part, be determined in the size of bougie that will answer.

3. The patient should be placed in such a posture as tends in the most effectual manner to relax the urethra. He may either be made to stand, with his thighs separated, and his body bent gently forward, or he may be laid upon his back, with his thighs not only separate, but raised. He ought, on no account, to be seated. In sitting the urethra is apt to be so much compressed that no space is left for the passage of a bougie. I have known several unsuccessful attempts to pass a bougie from this cause alone,

4. The surgeon being seated on the right side of the patient, should grasp the penis with his left hand, and, at the same time should draw it gently forward, so as to stretch the urethra to such a degree as may prevent it from catching the point of the bougie. With the bougie previously well oiled, in his right hand, he should

insert the point of it into the urethra, when it must be passed slowly, though firmly on, till it meets with some resistance. Neither should he desist at once on the stricture being met with. It answers better to continue to push on the bougie with a due degree of firmness, than to withdraw it immediately, as is often done. The first application of a bougie to the obstruction is very apt to excite irritation and spasm, even in the stricture itself; and I have often thought that this was more easily overcome by pushing the bougie on at first, than by any subsequent introduction of it.

5. A knowledge of the force that may with safety be employed in passing a bougie can only be acquired by experience. The less violence that is done to the urethra, or to the cause of contraction, the better. It cannot, in some cases, be done without pain, but it should never be made to force a discharge of blood. When blood comes away, the instrument should be instantly

stantly withdrawn: for when this takes place, we may always be certain that some parts have been injured which ought not to have suffered, and by continuing to force on the bougie, that there is a considerable risk of its forming a new passage for itself.

6. The distress which ensues from a new opening being formed by a bougie is apt to be so great, that nothing should be omitted that can in any way tend to prevent it. When there is cause to suspect, from the quantity of blood discharged, that the membrane of the urethra is injured, the bougie ought not to be again introduced for several days; not till there is reason to suppose that the wound in the urethra is healed, for, till this takes place, it is obvious that it would be very apt to renew the injury.

7. As bougies ought all to be of a conical form, they should not be pushed farther at first than freely through the first ob-

struction, otherwise the contracted part is apt to be torn open with too much force. It answers better to proceed gradually, and to increase the size of the bougie, or to push one of the same size farther on, in such a manner as may avoid every risk of injuring the membrane of the urethra.

It is true that cures will be obtained where bougies have been introduced with much violence; where violent pain, accompanied with hæmorrhagy, has been excited: but this is a practice, which, for the reasons I have mentioned, ought never to be adopted.

8. The bougie being introduced, some attention is required to prevent it from slipping altogether into the urethra, as well as for retaining it in the depth at which it is inserted. We obtain the first of these objects by bending the end of the bougie, which, for this purpose, should be left at least half an inch out of the urethra; and the usual method of retaining a bougie in its place is, by tying a piece of soft cotton thread

thread to the end of it, and fixing it with this either directly to the penis, by passing it once or twice round above the glans, or connecting it to the circular belt of a common suspensory bandage. But the most effectual method, as well as the easiest, which I have tried, is fitting the penis with a small bag or pouch of cotton or linen. The bougie being introduced with its end bent down, the bag must be put over the penis, and being fixed with two pieces of tape to a circular belt round the body, the bougie is in this manner easily retained.

Common bougies being of no great value, may be cut of such a length as to leave half an inch or so out of the urethra, for the purpose of bending down in the manner I have mentioned; but those of the elastic gum should be kept of every variety of length, from three or four inches to nine or ten; and being easily formed with a knob at the large end, they are thus, in the most certain manner, prevented from slipping in.

9. When this caution has been neglected, and when a bougie is thereby allowed to slip completely into the urethra, it is sometimes, by the awkward attempts of the patient, forced altogether into the bladder.

10. In this situation it cannot be removed but by cutting into the bladder, as is done in the operation of lithotomy, and extracting it with forceps. But while the bougie continues in any part of the urethra it may be taken out by an operation of much less importance and hazard.

When the end of the bougie can be seen, it may with some care and attention be laid hold of with a small hook, or with narrow-bladed forceps, such as are used for extracting stones that fix near to the end of the urethra. But when it has passed so far in that it cannot be perceived, this method of extraction will not succeed.

11. In this case it can only be got out by making an incision upon it directly into the urethra.

urethra. The skin should be first drawn back, when a cut should be made through the teguments and urethra at once, of at least half an inch in length, when, if the end of the bougie can be laid hold of, it may be taken out at this opening; or if this be not practicable, it may be pushed forward till the end of it passes out at the end of the urethra. This may be done either with small forceps or pliers, or by sticking a pin into the bougie at the opening and pushing it slowly on. The wound for the most part heals easily.

10. The circumstance which next requires attention in the use of bougies is, the time they should be allowed to remain in the urethra, and the frequency with which they should be introduced.

As bougies act, perhaps, entirely in the cure of strictures by the pressure which they afford, and prove chiefly useful by the total change of structure which they induce in the parts to which they are applied, they must necessarily require a considerable

considerable time for effecting this. The longer, therefore, that they are retained in the urethra, the sooner will this be accomplished. But while we attend to the removal of the stricture, care must be taken to prevent injury by their exciting too much irritation. This, indeed, is the circumstance by which we ought to be chiefly directed. It may be laid down as a general rule that bougies may be retained in the urethra as long as they excite no pain or irritation; while, in every instance, they should be withdrawn as soon as much pain is produced by them.

At first they can seldom be allowed to remain longer than half an hour at once; but on the urethra being for some time accustomed to receive them, they may, for the most part, be left in it for several hours; and this may be repeated once and again during the course of the day.

11. During the time that bougies remain in the urethra the patient should be prevented from walking or moving more than

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is absolutely necessary. This is not usually attended to with necessary strictness, by which many are prevented from deriving that advantage from bougies which otherwise they would receive.

In walking with a bougie in the urethra the irritation induced by it is at all times considerable; but this more especially, when common bougies are employed. The motion in walking is apt to crack and break the plaster of which they are formed, which renders their surfaces rough and unequal, by which it is obvious that much harm must be done.

12. In order to obtain the advantage of perfect rest while bougies are introduced, we are advised by many to employ them only at bed time, and to allow them to remain in the passage during the night. This may answer when the patient is not liable to nocturnal erections, but where these are apt to occur it ought never to be permitted. I have known several instances of much pain and inflammation induced by it.

it. It may, in some circumstances, be more inconvenient to apply bougies during the day, but it is evident that it may be done with more safety.

13. To admit as long a retention as possible of bougies in the passage, some have alledged, that the patient may with safety be allowed to void urine while they remain in it. I have known this done and no harm ensue, where the urine was passed slowly, and with much caution: but I have also known the attempt do much harm, and as the trouble of introducing the bougie a second time is not equal to the hazard of allowing it to remain, I always advise it to be withdrawn on a desire to void urine taking place.

Besides the pain and inflammation which want of attention in this matter is apt to induce, and erections occurring during the introduction of bougies have likewise this effect, I have known different instances of its appearing to lay the foundation of spasmodic affections of the urethra, which afterwards

terwards proved very obstinate, even after the original strictures were removed.

14. By gradually increasing the size of the bougie, the stricture through which it is passed will at last be removed; but before it is entirely destroyed it will be proper to push forward the bougie, to discover whether there is any other cause of obstruction or not. It is better, however, not to make the attempt till the opening through the first is considerably enlarged, when it will much more readily succeed.

Whatever other strictures are discovered they must be managed in the manner we have advised for the first; the bougie must, if possible, be made to pass through them all, and the size of it gradually increased till the urethra is opened to its complete natural size.

15. In passing bougies for this purpose, it has been a point in dispute whether they should be carried the length of the bladder,

der, and allowed to remain in it or not. I am decidedly of opinion that they should be passed completely into the bladder as soon as this can be done, in order to discover the utmost extent of the strictures; but I also think that they should never be allowed to remain in the bladder. The common bougies are so apt to crack, and pieces of the plaster to fall off, that this might very possibly happen from their being immersed in urine; and we all know, that if a particle should drop, not small enough to pass off with the urine; that it would probably serve as a nucleus for a stone. This would not so readily happen with bougies of elastic gum; but even these, where there is so much hazard, ought not to be trusted, particularly as there is no real necessity for it in the management of strictures; for it is found upon dissection, that they are always seated anterior to the neck of the bladder. They are often in the membranous part of the urethra; but they have, perhaps, never been

been met with in the prostate gland, I mean in the urethra as it passes through this gland.

It must be admitted that the urine is often obstructed by affections of this gland; by inflammation, as well as by a more indolent kind of swelling, to which, as we have elsewhere had occasion to see, it is sometimes liable. But this variety of obstruction, instead of being removed by bougies, is always injured by them. We are sometimes under the necessity of passing a catheter, even during an inflamed state of the prostate gland; but this should only be done for drawing off the urine when it has been completely suppressed. When the gland has been for some time swelled in such a manner as to create a stoppage to the flow of urine, it is obvious from its firmness, that bougies cannot remove it, while, by the irritation which they excite, they never fail to do harm.

16. Besides the length of time which bougies should be kept inserted daily, it is

an object of importance to determine at what period they may with safety be laid aside. This, I must acknowledge, is difficult to do, as it depends upon a variety of circumstances with which it is impossible at all times to be acquainted. Even where the stricture is so completely removed that bougies pass with ease, and the urine is voided in a full stream, the disease is apt to recur if the bougies be too soon left off. They should, in every instance, be worn for a considerable time after all appearances of stricture are gone, and the more obstinate the disease has been the longer they should be continued.

Even after a patient considers himself as so entirely well that he may conceive no hazard to ensue from the farther use of bougies being entirely dropped, still he ought to have them at all times in his possession, so as to be able, on the least return of obstruction, to employ them instantly. This is a precaution not often adverted to, but which ought never to be disregarded by any who has suffered in this manner;
and

and I think it the more necessary to insist upon it, from several instances having fallen within my own knowledge of the most distressful consequences ensuing from a neglect of it. It is more particularly proper for all people in this situation, going upon a journey, to be well provided with bougies; for when from home they cannot always readily meet with them, while; at the same time, they are more exposed to the various causes most apt to excite a return of the disease. These particularly are, exposure to cold and dampness; much fatigue, whether on foot, horseback, or in a carriage; and excess in wine and spirituous liquors.

All of these causes act with such certainty in inducing a return of affections of this kind, that I have seldom known them fail where people have been much exposed to them; and, in most instances, their effect is perceived soon after their application. I have known a person, who, after being completely cured of strictures for several years, has been seized with a very

hazardous and painful return of the disorder, in the course of an hour or two after being much exposed to a cold east wind. It is particularly apt to occur from violent exertion on horseback, and from being much overheated with wine; more especially from excess in port wine.

A return of stricture is also apt to arise from the urine being at any time too long retained after a desire takes place to pass it. This ought always to be guarded against; but I also think it right to mention, that patients sometimes err in getting into the habit of voiding urine too frequently. By yielding immediately to every impulse, such a habit takes place, that they are apt, from this cause alone, to continue during life to pass it every hour or two. This proves not only very inconvenient, but it is also apt to induce a contracted state of the cavity of the bladder, together with a thickening of its coats, its full distension which naturally ought to occur from time to time, being thereby prevented. Hence it is a matter
of

of no small importance for patients in this situation to observe as just a medium as can be done between the two extremes which we have mentioned.

On the least return of stricture being perceived, whatever the cause may be, a bougie should be immediately introduced. The patient, if he is plethoric, should be blooded in proportion to his strength; his bowels should be opened with a gentle laxative, or with a clyster; and he should be kept in bed till the violence of the disease be removed. In this manner I have known the most formidable attack soon carried off, while, from treating them with inattention, even the most trifling symptoms have been rendered severe, and in the highest degree obstinate.

The sudden and unexpected manner in which patients are often attacked with a return of these affections, has given cause to suspect that they must, in such instances, proceed from spasm. But the obstinacy with which they often continue, as well as every other circumstance attending them,

renders it obvious, that in a great proportion of cases they proceed from causes of a more permanent nature than spasm is almost ever found to be.

17. We have hitherto been supposing that the strictures are of such a nature as to permit a bougie to be passed with no great difficulty; in which case, no doubt can be entertained of our being able, by perseverance, either to accomplish a cure, or to afford at least very effectual relief, and to prevent any alarming obstruction from taking place to the passage of the urine; for however bad a stricture may be, if bougies of a small size can be passed at first, we may always be able, as I have already observed, in a gradual manner, to introduce those of a larger size. But frequently, either from the passage being contracted to a very small size, or from the stricture being altogether on one side of the urethra, by which the passage is thrown over to the opposite one, after a variety of attempts we find no progress made,

made, or if any thing is gained, it is so inconsiderable as to afford no kind of relief. This proves always very dispiriting to the patient, and is apt to dispose practitioners not much versant in this branch of business to desist from all further trials: considering the disease to be incurable, they prescribe a course of palliatives, which, for the most part, avail little, while the only remedy from which advantage could be expected is deserted.

This ought never to be done, at least it ought never to come on the part of the practitioner, nor can any thing warrant the measure but the patient himself being determined against the farther application of bougies. This, from impatience and disappointment, is apt to happen; but it ought at all times to be as much as possible resisted. Even in the most obstinate obstruction that occurs, if the passage be not altogether obliterated, a surgeon of experience will scarcely fail, if he be not prevented by the impatience or timidity of

his patient from persevering for a due length of time.

18. When there is cause to suspect that the passage is thrown over to one side of the urethra, by the stricture being fixed in the other, a point in which we may sometimes be determined by external examination with the fingers, and most frequently by the feelings of the patient, the extremity of the bougie should be slightly curved or bent before being inserted, and the point of it being turned towards that side where the passage is understood to be, if carried on in this direction we will sometimes succeed, when various attempts have failed in the usual manner. It will be readily supposed that the curvature given to the bougie must be very inconsiderable ; but even the slightest will sometimes give it the direction which we wish it to take, while it does not prevent it from passing with sufficient ease along the urethra.

19. In

19. In the introduction of a bougie it ought to be kept firm between the finger and thumb of the right hand, and pushed gradually forward till it reaches the stricture; but when it has got this length, it commonly answers better to twirl it between the finger and thumb, taking care to push it gently forward at the same time. At least I often succeed in this manner when the usual method of pushing it directly on, has failed.

20. I have already observed that no more force should be used in the introduction of a bougie than is merely necessary for making it pass; but it is proper to remark, that in the hands of a surgeon of experience, much more force may with safety be applied than others can with any propriety venture to employ. By pushing a bougie slowly and gradually forward, we often force it through strictures without any discharge of blood taking place, while much pain and laceration is sometimes produced even by less violence, when

when applied in a hurried or quick manner.

21. When we find upon trial that a small bougie, nearly the size of the opening, is made to pass, no force will be afterwards required, if the bougies be gradually increased in size. But when we find, upon repeated trials, that the remaining passage cannot be discovered, and when we therefore mean to employ more force, a bougie of greater strength should be used in place of the smaller one. The small sized bougies, particularly those of the common kind, are so easily bent that they should never be employed where much force is required. I have known even surgeons of experience push forward bougies of this kind, and concluding that they had passed the stricture, have carried them on till they imagined they had nearly reached the bladder, when, on being withdrawn, they were twisted up in the form of a cork-screw, having never gone farther than the stricture.

With

With a firm, well-polished bougie of elastic gum, well rounded at the end, and not smaller than a crow's quill, such a force may be applied as will often succeed when no advantage can be derived from those of a smaller size; and we should not be deterred from proceeding although the first trials prove unsuccessful, for we often pass the stricture by perseverance when no advantage was gained at first.

I have reason indeed to imagine, from what has happened in the course of my own practice, that few cases will occur which may not ultimately be cured by bougies. But when they do, in what manner are we to proceed? When every trial that we dare venture upon with bougies fails, what are we to do? This, it is evident, must depend entirely upon the state of the parts affected, and upon the degree of obstruction which takes place.

If there is still such an opening left as admits of the urine passing off with tolerable ease, I would advise nothing farther to be done. A patient, in such a situation, had

had better submit to the inconvenience of passing it slowly, and even frequently, than to the operation of removing the stricture, which consists in laying the obstructed part of the urethra open, and in the frequent introduction of a bougie during the process of the reunion of the divided parts. This, however, is an operation of much importance: it is attended with so much pain, and with such uncertain success, that no practitioner of experience would recommend it while the urine is not totally obstructed; and long before this could probably happen, the situation of the parts lying between the stricture and the bladder is commonly such as to induce the patient to submit more readily to any operation that may be necessary than he ever would have done in a more early stage of the disorder. Whenever the stricture occasions much difficulty to the flow of urine, that part of the urethra lying between the stricture and bladder is necessarily distended on every attempt to void urine. This frequent stretching at last weak-

weakens the lining membrane of the urethra: the urine is at first in small quantities, and afterwards in larger, forced into the surrounding cellular substance: this forming one or more small tumours, at last bursts out through a corresponding number of openings, either in the perineum, or in the cellular part of the scrotum. At least this is the usual progress of such tumours when the strictures in the urethra by which they were produced cannot be removed.

This is the most frequent cause of the disease we have already had occasion to mention, *Fistula in Perineo*, in which the urine continues to flow out at the newly forced openings, as long as the strictures in the urethra are allowed to remain, and which accordingly, as we have already observed, makes the patient easily submit to whatever may be necessary for removing them. In such circumstances nothing will prove successful if the diseased parts be not freely laid open. A staff being introduced the length of the stricture, and a
small

small probe passed in at one of the openings, and carried to the opposite side of the stricture, the intermediate space should be laid open by an incision in the direction of the urethra. In this manner the cause of obstruction will be discovered and removed, and the other sinuses communicating with the urethra being likewise laid freely open, a cure, even of the worst cases that occur, may thus be frequently obtained. To enter more fully into the consideration of this operation, and of the after treatment of the fores, would here be improper, as it would extend this article to too great a length. It could not be done with precision and clearness without entering upon the general doctrine of fistula, and upon the different methods of cure that have been proposed for it; and as this has been done in a different work, I must now refer to what I had then occasion to say upon it*.

Before concluding the consideration of strictures in the urethra, I think it neces-

* Vide System of Surgery, chapters xv and xx.

fary to notice a method of cure that has been proposed where we fail in the introduction of bougies, the repeated introduction of caustic into the urethra, with the view of destroying the cause by which the stricture is produced.

This practice prevailed upwards of a hundred years ago, but was soon relinquished. It has lately, however, been revived, or rather a proposal made for reviving it, by Mr. Hunter of London, under whose direction it is to be hoped that it will soon become as generally useful as we can ever expect it to be. But as I consider this practice as more or less hazardous, and not likely to prove often effectual, I shall briefly state what leads me to form this opinion, that others may be on their guard against too implicit an adoption of it.

The introduction of caustic into the urethra must prove hazardous from two circumstances, our not being able, even with all the pains we can take, to apply it to the stricture alone, without injuring the
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the contiguous parts of the urethra, and the risk which there must always be of some small portion of the caustic breaking off and being left in the passage.

Mr. Hunter has indeed invented a very neat apparatus for the introduction of caustic. It consists of a silver tube, open at both ends, nearly the thickness of a common catheter, with a port-crayon, somewhat longer than the tube, into which the caustic is fixed. A stillette, with a perfectly round end, is first passed through the tube, and if it be exactly fitted to the end of it, the two together may be carried with perfect ease along the urethra till they come in contact with the stricture, when the stillette is to be withdrawn, and the port-crayon, with the caustic fixed in it, introduced. The caustic being applied to the stricture for about the space of a minute, must be withdrawn along with the instrument, and this must be repeated every two or three days till the cause of obstruction is removed.

This,

This, from description, appears perfectly simple, and of easy execution; but notwithstanding the ingenuity of the invention, it is obviously liable to the two objections which I have mentioned. We know, even where parts are uncovered, and therefore immediately under view, that it is exceedingly difficult to destroy diseased parts with caustic, without injuring the contiguous sound parts. In the urethra, therefore, where we receive no advantage from the eye, and where the slightest deviation of the instrument may fix the caustic upon the urethra itself, instead of the stricture, there must evidently be a good deal of hazard from this circumstance alone, independent of the chance of injuring the contiguous parts merely by the spreading of the caustic, admitting it to be applied with all manner of exactness.

Besides, as the size of caustic that can be passed in this manner is necessarily very small, there must always be some hazard of its slipping out or breaking off, an occurrence from which the highest degree of

distress would ensue; for it could not be extracted, and dilution could not be employed with such effect as to prevent it from doing a great deal of mischief.

Another very important objection occurs to this practice. A great proportion of all strictures, perhaps nearly nine of a hundred, are seated beyond the curve of the urethra, to which an instrument so streight as a tube acting as the conductor of another body ought to be, cannot be carried. But Mr. Hunter, foreseeing the difficulty, has endeavoured to remove it by proposing that the end of the tube should be flexible, and of the same form with the common flexible catheter of silver. But this, while it apparently adds to the ingenuity of the invention, renders it evidently more hazardous. The small point of caustic contained in the port-crayon will be more apt to be broken or loosened in passing through a curved tube than through a streight one, while it will not be possible to apply it to any one point with such firmness and steadiness.

But

But even admitting that caustic may with safety be conveyed to strictures in the urethra, yet, in those cases which do not yield to the use of bougies, the obstruction is generally of considerable extent, and the quantity of caustic necessary for removing it so great that the contiguous sound parts of the passage must be much injured, whatever care and attention we bestow in the application of so active a remedy. On these accounts, it would appear, that for the removal of strictures in the urethra, the application of caustic is either impracticable or unsafe. In all slight obstructions of the urethra a degree of force may be used with bougies, sufficient for removing them. Whenever this can be done, no person will doubt of the propriety of preferring them to the use of caustic; and when the cause of obstruction is of such extent as to render our attempts with bougies unsuccessful, there will be little or no room to hope that caustic will answer the purpose. In other parts of the body we all know how difficult it is to re-

move even the callous edges of an ulcer with caustic. Nay, in many instances, new parts seem to form before the eschar produced by the previous application of the caustic has come off. I have no hesitation, therefore, in saying, that in similar affections of the urethra, proceeding to the extent which we here suppose them to do, caustic would either be altogether inadequate for the purpose, or must be applied in such quantities as would be attended with a great deal of hazard.

In all such circumstances, I consider it as preferable to let the disease take its usual course. The worst that can happen is, the formation of sinuses behind the strictures, and the discharge of urine from the openings which these produce. Few patients incline long to submit to this; but I consider the cure of this state of the disease, by the mode of treatment already pointed out, as more certain, while it is obviously much less hazardous than the means proposed for preventing it by the application of caustic.

S E C T.

SECTION V.

Of deranged Sensations in the Bladder, Urethra, and contiguous Parts.

ON the running and other leading symptoms of Gonorrhœa becoming moderate, all the others usually abate, and the patient, for the most part, is perfectly well soon after the discharge leaves him.

This, however, is by no means universally the case, for it sometimes happens that a good deal of distress remains long after the discharge is completely removed, and as the symptoms which take place in this state of the disease are of a nature which cannot be referred to any particular head, I have judged it proper to speak of them in a separate section.

Without any fixed pain, a patient, who from the discharge and other symptoms

of Gonorrhœa leaving him, has cause to imagine that his cure is completed, will be suddenly seized with uneasiness over his loins ; painful feelings over all the region of the bladder, particularly about the neck of it ; a sense of weariness on the region of the kidneys, which sometimes becomes much pained ; a considerable degree of uneasiness over the whole course of the urethra, particularly about the glans, and a painful sensation of rolling, and other unusual motions, in the testicles.

In some cases these symptoms, which seem to be confined to the organs of urine and generation, take place either in whole or in part by themselves. At other times they are conjoined with affections of other parts, chiefly with those of the stomach and alimentary canal. In one case they were accompanied with regular attacks of cholera, which had all the appearance, from the violent degree of pain which occurred, of proceeding from inflammation, but which always subsided immediately on the symptoms being removed by which it seemed

seemed to be induced. In different instances I have known sickness and vomiting succeed to that painful uneasiness to which patients in this situation are sometimes liable in the kidneys.

Distressful feelings frequently occur in the rectum, which give cause to suspect, in some instances, that they proceed from piles, and in others from tumours forming in the end of the gut. A painful tenesmus often accompanies this set of symptoms.

In some almost every symptom occurs which usually takes place in stone in the bladder. A dull, heavy pain is felt at the neck of the bladder, which spreads along the urethra, and fixes upon the glans. The patient is distressed with frequent desire to pass water, and, in passing it, it often stops suddenly when coming off in a full stream.

In a few cases symptoms of paralysis occur, both in the bladder and urethra. The patient at one time finding it difficult, or even impossible, to force the urine out

of the bladder, while, at others, it runs off in drops, without his being able to retain it.

These unequal states of the power of passing and retaining the urine will sometimes occur alternately, several times in the course of the same day ; while at times one of them will continue for several days together, and at last will disappear suddenly, after having resisted every remedy that had been employed for it.

It will readily be supposed, however, that all of these symptoms cannot probably occur at the same time in the same patient, but every practitioner must have met with all of them in different patients.

At the same time that they take place with some variety, they likewise occur in very different degrees. In some they are so slight as merely to excite some trifling degree of uneasiness, and so transient, that they come and go frequently in the course of the same day ; while, in others, they are so fixed and permanent that the patient remains in a state of constant distress, and expe-

experiences such a degree of it as he is scarcely able to support.

In women, the bladder, kidneys, and abdominal viscera, are equally liable to be affected as in men; and they are also apt to be distressed with uneasiness about the neck of the womb, and bearing-down pains, stretching to the thighs.

Even in the most firm-minded people the symptoms I have described prove frequently very distressful; but where the mind is weak, and the imagination easily affected, they arrive in some instances at the most alarming height. In whatever degree they may appear, they are attributed to the preceding disease having either been improperly treated, or not completely cured; and when this occurs in a mind prone to fears and anxiety, the distress which they are apt to excite, is in some instances so great, as can scarcely from such a cause be supposed to exist. Whether a course of mercury be adviseable or not, the patient is never satisfied till this medicine be prescribed; for he is always afraid that his constitution

stitution will be ruined if mercury be omitted. If this proves successful, or if he gets well when under it, he remains completely satisfied; but when this does not happen, as is the case in most instances, he then believes that he is incurable, and that his situation is desperate. Every variety of nostrum is now had recourse to: by the effect of these, and still more by the agony of mind under which he labours, his constitution at last begins to suffer; he gradually becomes weaker and emaciated; and if his life is prolonged, it is almost always a scene of anxious inquietude and distress.

The cause of all or any of these symptoms it is often impossible to explain. Were they to happen chiefly where the previous inflammation has run high, or where the patient, when under cure, had been particularly apt to indulge in venery, excess of wine, or bodily fatigue, one or other of these causes would tend to account for them. But this is by no means the case. They are met with as frequently where
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the disease has been of a mild nature, and where it was cured in an easy manner, as where the symptoms have been severe and obstinate. Where this takes place we are apt to suppose that they are mostly, if not entirely, of an imaginary nature, and to treat them accordingly. This, to a certain degree, may often be proper, as it may fortify the mind of the patient against those ill-grounded fears to which he might otherwise be exposed; but we are not to suppose that symptoms of this kind are always ideal, merely from our not being able to account for them, or from the previous Gonorrhœa having been of such a mild nature as we may imagine ought not to have produced them. I have met with instances of this, where the previous disease was exceedingly mild, and where no obvious affection of the parts was perceptible, and yet the violence of the distress in such a degree as kept the patients in a state of constant misery.

Many of the symptoms enumerated above are such as are produced by tumours
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about the neck of the bladder, particularly by affections of the prostate gland, and by a contracted state of the bladder itself. In such cases, the cause of the disease is at once rendered obvious by examination with the finger in ano; but at present we are supposing that no organic affection can be discovered either inwardly or outwardly, an occurrence by no means uncommon, and in which I therefore conclude that the symptoms proceed from a deranged state of the nerves, produced by the previous affection of the urethra. I have accordingly arranged all of them under one general head of *Deranged Sensations*, nor is there cause, from the nature of the remedies found to prove most successful in removing them, to treat of them separately, nearly the same general treatment being found to answer in all of them.

Before proceeding to enumerate the remedies for affections of this kind, I may observe, that although we cannot in any case say positively what will accomplish a cure, I can with certainty say what will
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not answer. I have already remarked, that patients in this situation are apt to suspect that their symptoms proceed from the previous disease having been improperly treated. This leads them to imagine that a latent poison is still lurking in the constitution, and mercury being the only certain antidote for the venereal poison, they always insist upon this being prescribed. Some practitioners, still entertaining the opinion of Gonorrhœa and Lues Venerea proceeding from the same infection, consider it necessary to prescribe mercury for all the consequences of each of them, while others are readily prevailed upon, by the solicitation of their patients, to permit what they may suppose it would not be in their power to prevent. But from all the experience which I have had of it, I am clearly of opinion that no advantage is ever derived from it, while, in a great proportion of cases, it evidently does harm. By relaxing the constitution it renders it much more irritable than it was before,

and thus tends to aggravate all such symptoms as those we are now considering.

The remedies upon which we chiefly depend are, blood-letting, opiates, warm bathing, blisters, cicuta, hyocyamus, electricity, Jesuit's bark, and cold bathing.

When the constitution is already much reduced and debilitated, blood-letting must necessarily be inadmissible; but whenever plethora takes place nothing proves more useful than blood-letting, both general and local, particularly the discharge of blood from the perineum, and parts contiguous to the anus, by the application of leeches. In such circumstances it removes or lessens irritability with more certainty than any other remedy. Even where there has been cause to suspect a tendency to paralysis in the bladder and contiguous parts, leeches applied as near as possible to the seat of the disease have proved serviceable; nor need we ever hesitate in advising them where the patient is not much emaciated. But the remedy which, in all affections of this kind, proves most universally useful is opium.

opium. It not only soothes and allays the present distress, but when, by a well-judged, timely application of it we can, for a week or two together prevent the accession of pain, we in this manner often accomplish a cure. It answers the purpose whether it be given by the mouth or in clysters, but it proves always most effectual when given in sufficient doses by the anus.

The external application of laudanum, and of anodyne balsam, in some cases affords relief, particularly when conjoined with æther. In those deranged sensations which sometimes occur in the perineum and about the neck of the bladder, immediate relief is often obtained by rubbing the parts affected with a mixture of warm laudanum and æther; and I have known the suppression of urine, which occurs from this cause, relieved in the same manner.

When opiates fail in procuring relief, or when they disagree with the patient, the semicupium sometimes succeeds.

Warm

Warm fomentations applied to the perineum, and over the loins, often prove useful; and the steams of warm vinegar, conveyed with attention to the parts affected, have likewise been used with advantage. The best article we can employ in such cases for fomentations is a strong decoction of the heads of poppies.

Blisters, in all such affections, are perhaps the most effectual of all our external applications. It is chiefly, however, where the urethra seems to be the seat of the disease that they prove useful, and where the neck of the bladder is affected with such a degree of weakness as prevents the urine from being retained by it. In the former, blisters act with most advantage when applied to the perineum, and in the latter they should be applied to the loins. The most distressful sensations produced by this cause, and which for many years have obstinately resisted every other remedy, have, in some instances, been removed by the application of a blister to the perineum. In some cases one proves sufficient; but
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in others they require to be repeated once and again before all the symptoms disappear.

Upon the same principle with blisters, exciting a return of the running after it has stopped, or after it has been diminished in quantity, has at times been productive of some benefit. This may be done by fomenting the penis and perineum with warm water, the application of warm poultices to the perineum, and by a cautious use of bougies. The practice was probably suggested by symptoms of this kind having in some instances been removed by the patient getting a fresh attack of Gonorrhœa from a new infection, different cases of which I have met with.

In all such instances, where the inflammation recently induced is considerable, the previous symptoms are either much diminished in violence, or entirely removed. This would lead to the practice of exciting an inflamed state of the parts in a considerable degree, and which bougies will never fail to do, if covered with

oil of turpentine, with a small quantity of common resin melted in it ; but as it is obvious that much harm would ensue from this practice being carried any great length, it ought to be managed in every instance with the greatest delicacy and attention.

It may be proper to remark that it proves chiefly useful where the disease is confined to the urethra ; although, in some cases, it has succeeded even where the bladder and kidneys have been affected.

Where the urine in such cases passes off involuntarily, blisters, we have said, answer with most certainty when applied to the loins. This probably proceeds from the disease in these instances arising, for the most part, from an affection of the bladder itself ; but where it proceeds, as it may sometimes do, from a tendency to paralysis in the urethra and muscles connected with it, blisters will prove most useful when applied to the perineum.

Where the urine passes off in this manner, balsam of copaiba, and other astringent balsams, are usually given. They
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are supposed to act chiefly by restoring the tone of such parts as appear to be relaxed and weakened, and which it is imagined they must do, from their having a peculiar tendency to pass off by the organs of urine. In like manner the internal use of cantharides is prescribed, from an idea of this symptom depending, in every instance, on a loss of tone in the parts affected, and from our knowing, that in most cases, cantharides proves a powerful stimulus both to the kidneys and bladder.

All of these balsams, as well as the common turpentine, which are not essentially different, may in all such cases be used with safety. In some instances they may perhaps prove useful, and I do not imagine that they will ever do harm. This, however, cannot be said of the internal use of cantharides. In large quantities they act as a poison: and even where managed with caution, the principle of the practice seems, in such cases as we are now speaking of, to be doubtful; for as there is cause to suppose that the disease pro-

ceeds more frequently from too much irritability about the neck of the bladder and urethra, than from any deficiency of tone, there is reason to fear, that by increasing the sensibility of the parts affected, they would in many instances be more apt to do harm than good. It is therefore proper, previous to the internal exhibition of cantharides, to determine with accuracy whether the disease proceeds from real weakness or morbid irritability. In the one case they may sometimes prove useful; in the other they will be apt to add to the violence of the disease.

Cicuta has been frequently prescribed here; and when given to such extent as to act as an anodyne, it may sometimes prove useful. Upon the same principle, *hyocyanus* may with propriety be prescribed; but we have no reason to suppose that either of these articles act in any other manner in curing the disease. As no organic affection appears to take place here, they cannot act by dissolving hard or enlarged parts. Any advantage derived
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from them will therefore be nearly in proportion to the anodyne effects which occur from them; and in this view they may prove useful when opiates disagree with the stomach, as in such circumstances it is of consequence to have it in our power to employ remedies of a similar operation.

Electricity has now and then given a temporary relief to symptoms of this kind. It should be exhibited in the form of sparks drawn from the parts chiefly affected, particularly from the perineum, and parts most contiguous to the neck of the bladder.

It is proper, however, to remark, that the same observations are applicable in advising electricity that were made upon the internal exhibition of cantharides. Both of these remedies, as well as the application of blisters to the loins, have been chiefly prescribed, where, in affections of this nature, the urine passes off involuntarily, and they are advised upon the idea of this symptom proceeding from paralysis of the neck of the bladder. But as there

is much cause to imagine that the frequent discharge of urine, which patients in this situation are sometimes distressed with, proceeds more from irritability in the neck of the bladder than from real weakness, there is reason to think that electricity, by increasing the sensibility of the part affected, and which in many instances it evidently does, will rather tend to aggravate the complaint.

Blisters, whether applied to the loins or perineum, may prove useful, not merely by the discharge which they excite, but by the irritation which they produce upon the skin. There is nothing more certain than our being often able to remove pain and irritability from one part by exciting it in others. Of this we have frequent proofs in the application of blisters and other stimulants, in deep-seated pain in the side, where the distress is often removed as soon as the skin becomes warm and uneasy, and long before any vesications are produced. Sinapisms applied to the feet, have, in some instances, removed head-ach
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when every other remedy has failed. In like manner blisters seem to operate when applied to the perineum, for the removal of those sensations to which patients in this situation are sometimes liable. But electricity, as well as the internal use of cantharides, by tending to irritate the very parts in which the disease is seated, seem often to increase the violence of the symptom they were meant to remove.

By a due perseverance in the use of one or other of these remedies we commonly succeed in lessening, or even in removing the violence of the distress; but as the symptoms are apt to recur, even after the patient considers himself as well, it becomes an object of much importance to obviate this. For this purpose nothing proves so effectual as Peruvian bark and cold bathing. A free exhibition of the bark should therefore be prescribed, as soon as the pain and other symptoms have begun to diminish, and sea bathing should be advised whenever it can be obtained. When this cannot be procured, cold water should be applied lo-

cally, both to the perineum and loins. Some advantage is derived from the parts being bathed with it, but it proves more effectual when forcibly dashed upon them.

An involuntary discharge of urine, which we have already had occasion to speak of, proves always troublesome ; but the distress which it excites is trifling when compared with what arises from the patient not being able to expel it. Even without any inflammation, and where no cause of obstruction can be discovered in the urethra, a patient will sometimes find it impossible to pass a single drop. This, no doubt, occurs frequently from other causes ; but every now and then we meet with it as an evident consequence of irritability in the parts chiefly affected in this disease.

All the remedies we have already advised will be equally applicable in the treatment of this symptom, as for the removal of any of the others. Opiates, however, and warm bathing, prove chiefly useful ; but when relief is not soon obtained,
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it becomes necessary to draw the water off with a catheter ; and as much harm is apt to ensue from this being long delayed, it ought to be advised as soon as the bladder appears to be sensibly distended.

In some cases the introduction of a bougie will prove effectual ; and as this gives less pain and irritation than the passing of a catheter, it ought in the first instance always to be preferred. One of the largest that will easily pass should be made use of ; and, after allowing it to remain in the bladder for a few minutes, the patient should be desired to pass his water instantly on the bougie being withdrawn. This ought not to be done with much force and pressure, otherwise the neck of the bladder and urethra are apt to contract instantly on the bougie being taken out ; while the whole will pass completely off if it can be made to flow easily at first, along with the bougie.

When this our intention in employing bougies is frustrated, we are under the necessity of employing the catheter ; and,

as it is of much importance, in all such cases, to prevent irritation as far as it can possibly be done, catheters of *resina elastica* should be employed, instead of the common instrument of silver. It not only passes more easily, but when any difficulty occurs in getting it into the bladder it may, in some instances, be proper to allow it to remain for a day or two together, which can never, with any propriety, be done with catheters of silver.

The practice of leaving catheters in the bladder is spoken of by some with much ease, and they advise it wherever any permanent stoppage occurs to the urine ; but I have in different instances seen so much mischief produced by it, that it is a measure I never advise but where much pain and difficulty occurs in the introduction of a catheter. In most instances, more pain is experienced from the instrument being allowed to remain in the bladder than ever occurs from its being frequently passed. Besides the irritation which even
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the smoothest and softest instrument of this kind excites, they are apt to prove hurtful by incrustations of calculous matter forming upon them, in consequence of depositions from the urine. There are few people whose urine is so free of this kind of matter as to prevent a catheter, inserted into the bladder, from becoming rough with it in a very short space of time. This practice, therefore, ought never to be adopted but where the greatest difficulty is experienced in introducing the catheter.

SECT.

SECTION VI.

Of Swellings of the Testicles.

A Swelling of one of the Testes is a very frequent occurrence in Gonorrhœa. From the resemblance which it bears to a hernia, and from its being supposed to proceed from the running or humour in Gonorrhœa falling down upon the testes, it is usually termed a Hernia Humoralis.

In some instances both testicles swell. They seldom, however, swell both at once; but the swelling, on leaving one testicle, is very apt to go to the other; and when both have in this manner been affected, they sometimes swell alternately for a considerable time together. I have known this happen for the space of a year and upwards, where the patient, during the whole period,

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period, was never completely free of the disease.

In long continued affections of this kind the pain becomes inconsiderable; but the first attack of the disease is always accompanied with severe pain. The first warning which the patient receives of it is a very painful sensation in one of the testes, striking along the spermatic cord, near to the middle of his back. On examining the testis he finds it swelled, and so tender that he can scarcely bear it to be touched. He feels himself hot, and a general uneasiness prevails over his whole body, particularly over his thighs and abdomen. Neither can he move without increasing the violence of every symptom.

At first the swelling is confined to the epididymis; the back part of the testicle feels hard and enlarged; but in a very short space of time, often in the course of an hour, the whole body of the testicle becomes swelled. In this state of the disease a difference is still perceptible between the testis itself and the epididymis. The latter

latter is hard, and somewhat unequally so; being, for the most part, hardest and most prominent at the bottom: whereas a soft, uniform swelling prevails over all the anterior part of the testicle.

In the progress of the disease, indeed, even the testis itself becomes hard, and if the means employed for preventing it do not prove successful, the swelling of the epididymis and testis together come to form a tumour of very considerable magnitude, accompanied with a red, inflammatory affection of the scrotum.

In this state of the disease, the pain is often intense, accompanied with a very distressful sensation of the testis moving or rolling about. The skin is dry and parched, the tongue foul, thirst prevails, and the pulse is full, and quick. In short, every symptom takes place which usually attends a high degree of local inflammation.

There is no period of Gonorrhœa in which this affection of the testis does not occasionally supervene. It occurs in all stages

stages of the disease; even towards the end of it, when both the patient and surgeon are apt to consider the cure as nearly complete: and in some we find it take place where no cause can be assigned for it, where neither the degree of the previous inflammation, nor the mode of life of the patient, were such as could in any satisfactory manner account for it.

It is proper, however, to remark, that swellings of the testis which take place in this manner, seem, for the most part, to be of a very different nature from those which occur during the virulent state of the disease, and while the inflammation in the urethra is considerable. The latter appear to be altogether inflammatory. The disease proceeds more slowly to its height or acmé. It remains more permanently at the size to which it arrives, and it disappears more slowly than the others, which come to their utmost height, in some instances, in an hour or two from the first approach of the swelling, and again disappear with equal rapidity. These I conceive

ceive to be partly inflammatory, and that in part they proceed from that kind of sympathy which evidently subsists between the penis and testis, and which renders the one very apt to suffer from any disease with which the other may be affected.— That sympathy has much influence in the production of this variety of the disease, is obvious from the swelling being apt to leave one testis, as we have already observed, and to fix, perhaps instantly, upon the other. This does not occur so frequently as the alternate affection of the eyes, from one of them only being at first affected, but every practitioner must have met with instances of it.

As it is observed that the running in Gonorrhœa is apt to stop on the first appearance of a swelled testicle, this gave rise to the idea of the affection of the testis proceeding from the matter falling down upon it, in consequence of being thus obstructed in its passage through the urethra. It is now well known, however, that no communication subsists between
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the urethra and testes, by which matter can pass from the one to the other; nor does the appearance which a swelled testicle affords give reason to imagine that it proceeds from this cause. Instead of being soft and compressible, which it necessarily would be were it produced by matter, it becomes daily harder, till it arrives at a certain magnitude, when it gradually becomes softer again, but without any fluctuation of matter being perceived in it.

There is reason to imagine, that in most instances the testes become affected by the inflammation spreading from the urethra along the vasa deferentia. This has been doubted by some, but without any good reason being assigned for it, nor has any other mode of accounting for it been suggested. We see that by the vasa deferentia a direct communication takes place between the urethra and testes, and the first appearance of a swelled testicle commences in the epididymis, formed as it were by the termination of this very line of communication. In a great proportion of

cases too, the patient is sensible of a pain stretching from the swelled testicle along the groin, which we know to be the direct course of the vas deferens.

A variety of other causes might be mentioned, which tend to excite inflammation in the testes in a similar manner with Gonorrhœa: among these are, the irritation produced by a stone in the neck of the bladder; by the irritation on the introduction of a catheter or bougies; and the inflammation which takes place in these parts after the operation of lithotomy. A swelling of one or both testes is not an unfrequent occurrence from all of these, particularly from the latter, and from the use of bougies, especially when they are not properly introduced; and we see no manner in which it can be so readily produced as by the irritation excited about the neck of the bladder, carried along the vasa deferentia.

The consequences of swelling of the testes, which we have most to dread are, a hardened state of the parts, chiefly of the
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epididymis, which, even when one, but more certainly when both testes are swelled, is apt to be followed by impotency; and a morbid irritability, which is sometimes so great as to prevent the patient for a considerable time from using any kind of exercise, and from following the ordinary occupations of life, without hazarding a return of the swelling of the testes. Suppuration in the body of the testes, from the inflammation induced by Gonorrhœa, is hardly an object of regard, for it does not take place in one of five hundred cases.

But the two circumstances I have mentioned of a permanent hardness in the epididymis, and that distressful irritable state of the testis itself, which are apt to succeed to this disease, are objects of the first importance, and require an immediate application of every remedy that can probably tend to prevent them. Scarcely any occurrence can prove more troublesome or inconvenient than swellings of the testis; and an enlarged state of the epididymis,

dymis, when it takes place in any considerable degree, has, in many instances, as I have already observed, the effect of inducing impotency. To a certain degree, a swelling of the epididymis often continues for a great length of time; in some instances, during the life of the patient, without any bad consequence taking place, particularly when one testicle only is affected. But I have known so many instances of the contrary, and of such distressful effects ensuing from it, as makes me with confidence say, that nothing should be omitted that can or might probably tend to prevent or remove it.

As we find that all the symptoms of this disease, as well as the consequences which ensue from it, are usually severe in proportion to the degree of inflammation which takes place, it ought to be our view, in every instance, to prevent this from arriving at any great height. This is most effectually done by blood-letting; a proper use of laxatives; opiates; the application of anodynes and astringents to the
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parts affected ; preserving the body in a proper posture, and suspending the testicle.

Of all these remedies blood-letting is the most effectual and certain, particularly local blood-letting by the application of leeches. In plethoric patients, or where the swelling arrives at any considerable bulk, blood should be taken from the arm in such quantities as the strength will permit, while, at the same time, a number of leeches should be applied over the testis. But in weakly people, particularly where none of the symptoms are violent, the abstraction of blood by means of leeches alone will commonly prove sufficient.

The first application of leeches to a swelled testicle excites a good deal of uneasiness. They increase the irritability of the parts, and an increase of the tumour seems to be induced by them ; but the discharge has seldom continued for the space of an hour or two till the pain abates, the tension, which before was considerable, becomes much less distressful, and the swelling even appears to lessen in bulk,

and in the course of the following day the patient can allow the parts which he could not previously bear to be touched, to be handled with freedom.

For the most part one application of leeches, if a proper number has been used, proves sufficient; but when any of the symptoms still continue severe, particularly when the swelling does not diminish, when the pain does not lessen, and when the febrile symptoms do not abate, it becomes in some cases necessary to repeat the application of leeches once and again. I think it here proper to remark, that we should never hesitate in this situation to take blood with freedom. A constitution must be delicate indeed that will be injured even with repeated applications of leeches; and I am satisfied that very important advantages may be derived in all cases of swelled testes from a timely and proper use of them.

Abstraction of blood by means of leeches is not only useful in shortening the duration of the inflammatory symptoms, but,
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in consequence of this, it proves serviceable in preventing two very distressful consequences which swelling of the testes is very apt to induce, viz. that swelled, indurated state of the epididymis which I have mentioned, and the most frequent variety of hydrocele, formed by serum collected in the tunica vaginalis. We have already had occasion to remark, that a permanent swelling of the epididymis is a very frequent effect of an inflamed testicle, and I have met with several well-marked instances of hydrocele proceeding from the same cause. That blood-letting in any way, whether general or local, will at all times prevent the accession of these symptoms I will not pretend to assert; but, from the result of much observation, I am convinced that it answers this purpose with more certainty than any other remedy that has yet been employed.

In many situations leeches cannot be procured; when this happens to be the case, nearly the same advantage may be derived from small punctures being made

on different parts of the swelling. The punctures should be made with the point of a lancet, and if the scrotum be previously immersed in warm water, nearly the same quantity of blood will be obtained from them as from the same number of leeches.

As swelling of the testicle in Gonorrhœa seems in every instance to proceed from the irritation excited in the urethra, it is an object of the first importance to remove every cause that can in any degree tend to irritate either the urethra or contiguous parts. Hence, where costiveness prevails, gentle laxatives prove particularly useful. I have known different instances of hardened fœces collected in the rectum inducing swellings of the testes; and nothing tends more certainly than this to keep up the disease, by whatever cause it may at first have been induced. But although costiveness is to be guarded against, we are, for a similar reason, to shun the opposite extreme. Strong purgatives always excite much irritation in the rectum, and are there-

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therefore to be carefully avoided in Gonorrhœa. It must consist with the knowledge of every practitioner that they universally do harm. Where the bowels are moderately easy no medicines for this purpose can be required, but when they are not in this situation, castor oil, flowers of sulphur, cream of tartar, or any other gentle laxative, should be employed. Even these should be given in small doses, repeated at proper intervals, rather than that any risk should be incurred of exciting irritation in the rectum by their being exhibited in larger quantities.

With a view to lessen and remove the irritation and pain in the tumour with as much certainty and expedition as possible, opiates should be prescribed immediately on the pain becoming severe. When they can be avoided till one or more easy stools have been procured they prove most useful; but when much irritation prevails no regard should be paid to this. As the sickness and general uneasiness which sometimes occur from a swelled testis are evidently

evidently the effect of irritation, nothing proves so effectual in removing these symptoms as adequate doses of opiates; and at the same time that they remove this distress of the system by lessening the pain they also tend to carry off the swelling of the testicle. From an idea that opiates tend to increase the heat and other symptoms of fever, many practitioners are afraid of using them wherever fever takes place in any considerable degree; but much experience of their influence enables me to say, that they may be employed with much safety and advantage in every stage of swelled testis where the degree of pain is considerable.

This is so remarkably the case, that I have known instances of the hernia humoralis, as it is termed, being cured by opiates alone, which did not yield to the usual remedies. In whatever manner Gonorrhœa may act in exciting swelling of the testis, the tumour, when once produced, excites so much irritation, that, till this be lessened, the swelling for the most part

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part continues obstinate. Next to blood-letting opiates prove the most effectual remedy for this purpose.

While the internal exhibition of opiates thus proves useful, advantage is often derived from applying them to the swelling itself. This may be done either by the application of soft pledgits, soaked in laudanum, or anodyne balsam, or by poultices made with a strong decoction of poppy heads and crumb of bread.

All the saturnine applications prove useful here. When Goulard's extract, as it is termed, is employed, or what is nearly the same, the acetum lythargyrites, it ought to be in greater quantities than are used in other parts of the body; for the testes being protected by different coverings, remedies of this kind, when of the ordinary strength, do not readily affect them. When saccharum saturni is employed, as it will not dissolve in sufficient quantity in water, if vinegar be not added, and as vinegar proves an useful application, even by itself,

self, these two remedies ought always to be combined.

The steams of warm vinegar act as an useful discutient here. In applying them, the testes should be properly suspended over a vessel in which boiling vinegar is contained; or the swelling may be fomented from time to time with flannel immersed in warm vinegar, and so strongly wrung, that nothing but steam remains upon it. Vinegar, in every form, acts with much advantage in this disease, and this gives a pleasant variety in the way of applying it.

Whatever remedy is employed the body should be kept as much as possible in a horizontal posture, at the same time that the scrotum should be properly suspended. We find by experience that no remedy will prove effectual while the patient continues to walk about; while, in many instances, a horizontal posture of itself, will have a considerable effect in removing the disease. In suspending the scrotum, care should

should be taken to do it in such a manner that the testicle be completely supported, without being compressed. Pressure, even in a slight degree, always does harm, and ought to be avoided.

We have already had occasion to observe, that in Gonorrhœa a stoppage of the discharge often takes place on the first approach of a swelled testis. This leads to the idea of some advantage being to be derived from our exciting a return of the running; and there is not a doubt of this proving in some instances useful. The discharge from the urethra not only lessens the inflammation in the part from whence it proceeds, but it has also an influence on the tumour of the testis. As it is now universally admitted that a return of the running does not act by drawing matter directly from the testis, some have suspected that it never can prove useful. But why may not a discharge excited in the urethra act in a similar manner in removing an inflammation of the testis, that we know from daily experience happens with
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setons and other issues in the treatment of inflammatory affections of other parts? The fact indeed, is, that a plentiful return of the discharge very commonly relieves all the symptoms of this disease.

For the purpose of exciting a return of the running, bougies prove most effectual; but in affections of the testes they require to be managed with a delicacy not usually observed in this branch of practice: for if more pain or irritation be produced than is necessary for the purpose, instead of acting as a remedy, they necessarily aggravate every symptom. In common practice, I think it better to trust to the frequent application of warm emollients; such as the immersion of the penis in warm milk, or in decoctions of althea, or lint-seed; applying warm poultices over the penis, and injecting warm oil or milk into the urethra.

From the instantaneous manner in which swellings of the testes sometimes succeed to a stoppage of the discharge in Gonorrhœa, and from their appearing, we are told,

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told, in some instances, even to precede this stoppage of the running, some have doubted whether they are to be considered as the cause or effect *. That the testes may first inflame, and the running afterward stop, cannot be doubted. But although this may happen in a few instances, the very reverse is what we commonly meet with, inasmuch that patients who have once been affected with swellings of the testes, are very apt to experience a return of the disease in every Gonorrhœa to which they may in future be liable, solely from the running being carried off in the usual way. I know several who, for this reason, dare not use even the mildest astringent injection; otherwise they are sure to have a swelling of the testis induced: while, in others, it swells at the termination of the running, whether injections have been used or not. In the course of my observation, therefore, no cause for doubt has occurred upon this subject.

* Vide John Hunter on the Venereal Disease.

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By a proper application of the different remedies we have mentioned, swellings of the testes are for the most part soon relieved, and at last are carried off entirely, excepting that permanent hardness to which the epididymis, as we have seen, is particularly liable. But although this is the common event of the disease, yet instances are not wanting, most frequently indeed from the patient's misconduct, of the whole body of the testis remaining swelled, and obstinately resisting all those remedies which usually prove effectual. If, in this situation, some application be not made by which the size of the tumour is soon diminished, and if it be allowed to remain stationary for any length of time, it is very apt to continue much enlarged, and sometimes of a scirrhus hardness during the life of the patient. I may also remark, that it is this state of the disease which is most apt to terminate in hydrocele; or effusion of serum into the tunica vaginalis testis, with which it is sometimes attended.

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In this situation mercury is commonly employed; and, in some instances, when given slowly, as an alterative, I have seen it prove useful; but it is doubtful whether a complete course of mercury should ever be advised or not, for when it does not carry off the swelling, which seldom happens, it is apt to increase it, and to induce pain and irritation in the tumour when none existed in it before. Whenever mercury, therefore, is advised, it ought to be in such quantities as cannot tend to quicken the circulation or excite fever. A decoction of mezereon has in some instances been given with advantage along with mercury *.

It is in this state of a swelled testis, where the tumour does not yield, but remains nearly of the same size after the inflammation by which it was induced is gone, that emetics are most likely to prove useful. They have been used, I know, in all periods of the disease; but it is chiefly in the

* Vide Appendix, No. 45.

situation we are now speaking of that I have seen them act with advantage. A smart emetic, carried a proper length, will sometimes, in the space of an hour or two, lessen the bulk of a tumour which had for several weeks obstinately resisted every other remedy. In some cases one emetic proves sufficient, while, in others, it requires to be repeated once and again. Mercurials were formerly used for this purpose. This was done from the disease being considered as a symptom of Lues Venerea, and for which mercury was known to be the only antidote. But we now know that tumours of the testes, which take place merely from Gonorrhœa, never partake of the Venereal Virus; and accordingly emetics, of whatever nature they may be, prove equally useful here with mercurials, provided the shock which they give to the system is equally considerable.

I have sometimes, in this state of a swelled testicle, applied a blister with advantage. It might not perhaps be altogether safe to apply blisters while the scrotum continues

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continues much inflamed; but when the external inflammation and tension subside, they may be advised with safety; and, in different instances, I have known them accomplish a reduction of the swelling of the testis, where other remedies had for some time been employed without any effect.

A due perseverance in the use of some or all of these remedies will seldom fail; where a swelling of the testicle is altogether inflammatory; but where it proceeds in a great measure from irritability, as we judge to be the case where the swelling comes and disappears suddenly, or where it comes and goes from one testicle to another, other remedies are, in this situation, found to prove more effectual:

Even in this variety of the disease blisters sometimes prove useful; and I have known the irritation removed, and the swelling carried off in the course of a short time by opiates; but these afford only a temporary relief, and do not prevent the disease from returning on the slightest

application of any of the exciting causes which usually tend to induce it.

The remedies which here prove most effectual are cold bathing, and a plentiful use of bark. Sea bathing, when the season permits, should in the first place be advised, but when this cannot be obtained, cold water may be used at home, with a proportion of common salt dissolved in it. It answers a good purpose whether the whole body be immersed in it, or merely the scrotum bathed in it; but, for the most part, I have thought that it proves most effectual when applied to the scrotum only. As bark and cold bathing act upon the same principle, that is, by giving tone and vigour to parts which we suppose to have been deprived of them, they may either be used together, or exhibited separately, as the patient may incline.

The testes, we find, are apt to decay. One of them will begin to lessen in bulk, and, in a gradual manner, will either disappear entirely, or leave only a thin membranous

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branous substance in its place. For the most part the other remains sound; but I have known instances of both becoming affected at the same time, and others where the one remained entire as long as any part of that which was first affected was perceptible, but where it also began to decay as soon as the other was entirely destroyed.

This affection occurs at all periods of life, but most frequently after the 40th year. In many instances, no cause whatever can be assigned for it; but I have observed that it is most frequent in people of delicate constitutions, where the muscles are soft and relaxed, and the complexion wan and fallow. I have also found that those in whom it occurs have, in almost every instance, been in early life particularly addicted to Onanism.

In a few cases it has appeared as an evident consequence of a swelled testicle. On the fullness produced by the disease being removed, the process of absorption by which this was accomplished does not

stop, but goes on till the whole testis is carried off. In some instances this takes place while the testicle continues to the last of its natural degree of firmness, or even while the hardness still prevails which occurred during the state of inflammation by which the swelling was at first induced: but, in others, before this wasting process commences, the testicle becomes soft and pulpy, or even dissolves into a fluid. It is seldom attended with pain, the patient being, in many instances, ignorant of his loss till one, or perhaps both, testes are nearly consumed.

Hitherto no certain remedy has been discovered for putting a stop to this complaint. Mercury, hemlock, and electricity have been tried, but with no advantage. The cold bath has for a time seemed to prove useful, but the disease returned again, and both testes were dissolved. In one case, where one of the testes was consumed before the patient perceived it, and where the other was evidently affected, I applied a blister over it. This wasting
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process stopped, and never recurred again. The patient is about 36 years of age. His inclination and powers of propagation, he says, are still as strong as they were before, and he has lately had a child.

SECTION VII.

Of Swellings of the Spermatic Cord.

THE Spermatic Cord is liable to swellings of different kinds, but it is such only as proceed from Gonorrhœa that we are here to notice.

It sometimes happens that inflammation of the testicle spreads to the cord, and excites pain and tumefaction along the whole course of it. At other times the cord inflames without any previous affection of the testis. It becomes tense, hard, and painful. The swelling, for the most

part, is at first confined to the vas deferens, but at last the other parts of the cord suffer also.

I have met with some in which one or two tumified parts were perceived in the course of the cord, while the rest of it remained sound; but, in general, the cord is equally affected, from the testis along its whole course up the groin.

On the first approach of this disease, as it is always accompanied with pain and tension, with some inability to walk, the patient is induced to treat it with attention; but, where the swelling is not soon carried off, the pain will sometimes abate, or even vanish altogether; and in this state, where the tumour is not considerable, the patient is led to suppose that no harm can arise from it: by this neglect the swelling is often rendered so firm and hard that no remedies we can employ have any influence in removing it. In some cases I have met with a hard ring, affecting the cord only at a particular spot, where the diseased part was nearly

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as firm as bone while the rest of it was in a soft natural state.

While the tumour is confined to one part of the cord I have seldom known it increase to any alarming degree, but whether it be circumscribed, or extended over the whole length of the cord, no time should be lost in the application of remedies for removing it. Independent of other reasons, if the vas deferens be chiefly affected, or even only compressed in its course, the testicle will be rendered as certainly useless as if it were extirpated: even this, in some instances where one side only was affected, has appeared to render the patient impotent, and it will never fail to do so where the disease affects both sides.

The remedies that prove most effectual here are blood-letting, blisters, and such others as are usually employed with advantage in swellings of the testis. These we need not particularly enumerate, as they were fully treated of in the last section; but it may be proper to remark that
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blood-letting proves chiefly useful on the first approach of the disease, and in this state, when properly applied, that it seldom fails in removing it. It may, in some cases, be necessary to take blood from the arm, but the local discharge of it by leeches applied to the part affected, is at all times to be more depended on.

Where the discharge of blood, however, does not soon lessen the size and hardness of the tumour, we need not afterwards expect any advantage from it. In this case I have repeatedly known blisters prove useful when applied along the course of the cord; but neither are they to be depended on if some effect be not soon perceived to result from them.

In partial affections of the cord a small blister applied to the diseased part, and the part kept open with ointment of cantharides, has tended to reduce the swelling.

Mercury is commonly employed here, and where the disease does not soon yield to blood-letting and blisters, it is perhaps
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the only remedy from which any advantage is to be expected; but I have commonly found, where the swelling has been carried entirely off by mercury, that there has been much cause to imagine that the patient at the same time laboured under Lues Venerea. In some cases the disease has subsisted in an evident form of pox in other parts of the body, while, in others, there was only grounds for suspicion. In all of these the mercury seemed to operate with more certainty when a decoction of mezereon and farsaparilla was conjoined with it.

Mercurial frictions prove more useful here than any other mode of giving the remedy, and the application of mercurial plasters to the swelled parts acts with more advantage in swellings of this kind than in any other in which I have employed them.

SECTION VIII.

*Of Swellings of the Lymphatic Vessels of the
Penis.*

WE know, from the history of the Lymphatics, that they serve to inhale, and to carry into the general course of the circulation, not merely from the surface of the body, but from every other part of it, fluids applied to their open extremities. In this manner they remove from some parts what might prove hurtful if allowed to remain, and they carry into the constitution from others what is obviously meant for the nourishment and support of it. But while this is their chief purpose, we also know that they carry into the system what often tends to destroy it. They seem to have no power of rejecting what proves hurtful, hence they
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SECT. VIII. *Lymphatic Vessels of the Penis.* 363

imbibe poisons, and the most inoffensive articles, with equal readiness. All our contagious diseases are probably produced through the medium of the lymphatics, and we can prove by experiment that this is the case with many of them; particularly with the plague, the small-pox, and Lues Venerea. So readily is the matter of these diseases absorbed by the lymphatics, that it can never with safety be applied to any part of the body; for so quickly does absorption, in some instances take place, that we have frequent proofs of infection being carried into the constitution, even after much pains has been taken to wash away the matter by which it was produced, in the space of a minute or two after being applied to the surface of the body.

For the most part we find that the lymphatics themselves do not immediately suffer by the absorption even of the most noxious matter. They will convey the poison of a viper and other serpents to the course of the circulation, by which the animal will be killed in the space of an hour,

hour, while no vestige of its effects appears in the lymphatic vessels themselves. In like manner, the matter of Lues Venerea passes into the constitution from the penis, without any swelling or other mark of disease being perceived in the lymphatics through which it was conveyed.

This, we must allow, however, is not universally the case. Instances sometimes happen of the matter of Lues Venerea passing through lymphatics that are hard and swelled, but we know from daily observation that it is not a frequent occurrence. We find, indeed, that the lymphatic vessels in every part of the body are apt to swell and inflame on causes capable of exciting irritation being applied to them. Thus we often observe the lymphatics of the arm swell, become hard and painful from a prick in one of the fingers with a pin or a thorn, or even from a nail being cut too far into the flesh; and in Gonorrhœa it is by no means uncommon to find a hard lymphatic passing along the back of the penis to the groin,
arising,

arising, in some instances, from the prepuce, and in others from the urethra. But although this, as we have observed, occurs also in some cases of Chancre, we meet with at least twenty instances of the contrary, for one in which this affection of the lymphatics takes place. I think, too, that I have observed, where the lymphatics proceeding from Chancres have inflamed, particularly where the inflammation has been considerable, that the constitution has not been so apt to suffer as where this did not happen. From all which, I would conclude, that inflammation of the lymphatics, instead of indicating an increased power of absorbing what is applied to them, as many have imagined, tends in a great measure to lessen, and, perhaps, to destroy it. Till the fact is farther ascertained, which experience and observation alone can do, it would be improper to place any dependence upon this in the treatment of Chancres. In all cases of Chancre, whether the lymphatics inflame or not, it would be imprudent to
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omit whatever might tend to render the constitution safe ; but finding that inflammation seems not only to lessen the power of absorption in the lymphatics, but that they inflame from causes in which we know that no infection exists, as often happens from a prick or a cut with a clean instrument, we would from this alone be led to think that this affection of these vessels which occurs in Gonorrhœa, proceeds more from irritation than from any other cause. This idea, however, is farther confirmed by the proofs we have already adduced of Gonorrhœa being a local disorder, as well as by our daily observation of the rise and progress of these swellings which occur in this disease. They commence with all the usual symptoms of inflammation. A hard string, or cord, is perceived along the back of the penis. It is painful to the touch, and the teguments above it sometimes acquire an erysipelatous redness. The whole penis becomes stiff and uneasy, and this renders erections particularly painful.

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In a great proportion of cases the inflammation subsides quickly and easily; the stiffness and pain gradually abate, and the hardness of the lymphatic disappears entirely: but where the inflammation has either been severe from the first, or not properly treated, it proceeds in some cases to suppuration, forming one or more small abscesses in the course of the affected part. The sores, however, which ensue from these, heal readily, when the constitution is otherwise healthy, forming a very manifest difference between Gonorrhœa and Lues Venerea. Similar affections of the lymphatics which occur in the latter, requiring, for the most part, a course of mercury to remove them. I say for the most part only, from having met with more than one instance of the sores which occur in Lues Venerea from this cause healing without the use of mercury, and which has induced me to think, that even in this disease, the lymphatics may swell and inflame merely from the acrimony of the matter, and that this inflam-

mation may have some tendency, as I have observed above, to prevent the matter from passing into the constitution.

Where swellings of this kind in Gonorrhœa are confined to the lymphatic vessels, I have commonly found that cold poultices, prepared with crumb of bread, and acetum lythargyrites, or saccharum saturni, prove more effectual than any other application. They remove the swelling and hardness, and lessen the pain with more certainty than warm emollient poultices. But where the inflammation spreads over the penis, as it sometimes does, it becomes necessary not only to discharge blood from the arm, but to apply leeches over the pained parts. This, with a low diet, and confining the patient to a horizontal posture, very seldom fails in removing the disease. But it sometimes happens, either from the neighbouring parts becoming severely inflamed, or from the diseased lymphatic bursting, that effusions occur in the contiguous cellular substance, and small abscesses forming, they at last discharge their
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contents, and produce such sores as I have already had occasion to mention.

The treatment of these should be the same as that of sores proceeding from any other cause in which the constitution is not affected. When their edges are hard and inflamed, emollient poultices will prove useful. For the removal of sloughs and foulness, red precipitate, or even caustic, may be necessary; and for cicatrising them nothing answers better than unguentum e calce zinci, or ceratum e lapide calaminare †.

In two different instances of hardened lymphatics in Gonorrhœa, besides the firm cord on the back of the penis, a thin, flat, hard tumour, proceeding from this cord, spread round the whole substance of the penis, for the breadth of a quarter of an inch. One of them was contiguous to, and immediately behind the glans. The other was near to the pubes. This last passed round the urethra, which it grasped so firmly as to give cause to suspect that

† Vide Appendix, N^o xlvii. xlviii.

at last it might prove a total obstruction to the urine. A course of mercury was tried in each of them, without any advantage. A small piece of mercurial plaster was then applied over the swelling, and this, with a gentle purgative of sea-water every second or third morning, was all that was advised. The swelling in each of them became considerably less, but never disappeared entirely. It did not, however, give any disturbance afterwards.

SECTION IX.

Of Swellings of the Glands in the Groin.

THE swelling and inflammation of the lymphatics, described in the last section, frequently proceeds no farther than the root of the penis. At other times it goes the length of the groin, and affects one or more of the contiguous glands, which

which become hard, swelled, and inflamed, putting on many of the appearances of the venereal bubo.

At other times these glands swell and inflame, where no affection of the contiguous lymphatics is perceptible. But although in such cases no apparent inflammation occurs in these vessels, there is, however, much cause to imagine, that in a certain degree it always takes place. There is not, at least, any other obvious route by which the inflammation can be conveyed from the urethra to the glands in the groin.

In some cases these swellings become large, and notwithstanding our endeavours to prevent it, suppuration at last takes place: but, for the most part, if they be not neglected at first, they may be very easily discussed. In most instances this may be accomplished by the use of saturnine poultices alone; but where the pain and inflammation are severe, blood-letting, both general and local, becomes necessary. Laxatives always

prove useful, and a cooling, low regimen can seldom be dispensed with.

The most perplexing part of the surgeon's practice here is, to determine the real nature of the tumour; to ascertain whether it proceeds merely from inflammation, or from the absorption of venereal matter. If from the last, mercury alone will prove effectual; while no practitioner would consider mercury as necessary for the removal of a swelling altogether inflammatory. Neither would it, in this case, answer any good purpose. It would not lessen the size of the swelling: nay, by the fever which it sometimes excites, it might even tend to increase it, and disappointment to the practitioner, and much distress to the patient, would be the consequence.

The circumstances upon which we chiefly form our judgment here are these: If no chancre or excoriation has been perceived, either upon the glans or prepuce, and if the inflammation in Gonorrhœa
has

has been considerable, there will be cause to imagine that the tumour is not venereal. When treating of chancre and venereal bubo, we shall enter more fully into the consideration of this; but at present I may observe, that buboes do not commonly occur without chancres going before them. I know, indeed, from various cases which have fallen under my management, that, contrary to the general opinion, real venereal buboes sometimes form without any previous chancre, or any external affection; but as it does not happen once in a hundred instances, we are sufficiently warranted in considering the absence of chancre as a reason for supposing that swellings of this kind are not venereal.

In such swellings as occur from Gonorrhœa much pain and tension prevail, not merely in the diseased glands, but over all the groin; and a general sympathetic uneasiness spreads over the thighs, and under part of the abdomen. Even the testes and abdominal viscera sometimes suffer,

whereas, in the venereal bubo, it is commonly one gland only that is affected, and the contiguous parts seldom become uneasy till the disease is far advanced; not, indeed, till the tumour has acquired such a size as to excite pain solely by distension. The swelled gland, it is true, is painful from the first, and the pain becomes gradually more severe as the tumour increases; but the pain is chiefly confined to one part, and seldom spreads farther till the teguments are much stretched by the subsequent formation of matter. And, lastly, when glands swelled from this cause burst, the sores which ensue have a very different appearance from those produced by real venereal buboes. Their edges, instead of being hard and retorted, have more the appearance of sores which occur from common abscesses, and they soon begin to heal, even when mercury is not employed, which the others, we may observe, seldom do.

This circumstance of these sores healing, whether mercury be used or not, is the
most

most decisive characteristic of their true nature, and when any doubts of this are entertained, either from the swelling having taken place without a previous chancre, or from any other cause, we ought to delay the exhibition of mercury till their tendency to heal, or to degenerate into a worse state, be ascertained.

If they put on a healing appearance, and gradually become less, there will be much cause to hope that a complete cure will be obtained, whether mercury be used or not; while, on the contrary, this remedy should be immediately advised when the sores become foul, and their edges hard; and particularly when, instead of healing, they extend to a greater size.

The progress of the swelling also affords a mark of discrimination. The venereal bubo proceeds more slowly to suppuration than the inflammatory swelling of which we now speak, which most frequently, indeed, is easily discussed, and seldom arrives therefore at the state of abscess; but when tumours of this description do suppurate,
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it commonly happens in the space of a few days. I have known matter completely formed in them in three or four days from their first appearance; a circumstance which perhaps never happens in glandular swellings produced by the matter of Lues Venerea.

SECTION X.

Of Excoriations of the Glans and Prepuce.

BY the acrimony of the matter in Gonorrhœa the Glans and Prepuce are sometimes excoriated. A slight degree of inflammation takes place at first, either partially or over the whole parts, and this being succeeded by a discharge of matter, the skin at last becomes fretted, and on being examined with a glass, the matter is perceived to flow from an infinite number

ber of small points, on the smallest pressure being applied to them.

But, for the most part, this affection of the prepuce and glans takes place without any discharge from the urethra. In the course of a few days after connection with an infected woman, and without any symptom of Gonorrhœa, a sensation of heat is perceived over the whole prepuce and glans, which soon terminates in a discharge of matter very similar to what comes from the urethra in Gonorrhœa. From this circumstance, the disease has been termed Gonorrhœa Spuria. The matter indeed is so similar to that of Gonorrhœa, that it is usually some time before the patient can be convinced of its not coming from the urethra. It not only resembles the matter of Gonorrhœa in colour and consistence, but likewise in quantity. In some cases, it is surprisingly great, owing to the great extent of inflamed surface, in the numerous plies and doublings of the skin forming the prepuce.

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In slight affections of this kind, the prepuce continues to move upon the glans as it does in health ; but when the matter is either of itself particularly acrid, or allowed by want of attention to remain till it becomes so, the skin forming the prepuce becomes so much inflamed and swelled, that it cannot but with much difficulty be made to pass backward and forward. In some cases this becomes impossible. If this happens when the prepuce covers the glans and cannot be drawn back, a disease is thereby produced, which we term *phymosis* ; and when the swelling takes place when the prepuce is retracted and cannot be pulled over the glans, the disease is termed *paraphymosis*. Of these affections we shall speak more particularly in the ensuing sections.

By many, this discharge of matter from the prepuce and glans has been judged to be venereal ; that is, they have supposed it to be produced by the matter of *Lues Venerea*. They have therefore conceived it to be always connected with an affection of the
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constitution, and have accordingly, in the method of cure, been chiefly directed by this opinion.

This opinion, however, is evidently not well founded. From much observation, I am convinced, that this discharge is of a local nature, and that it is no more capable of affecting the constitution than the matter of Gonorrhoea. I believe indeed that this is now very generally admitted; and that it is those only who doubt of it, who, taking their information from books, have not paid that attention to the event of these affections, which in forming a judgment of them is absolutely necessary. It will be universally found that the discharge may be more easily removed by remedies applied directly to the parts affected than by mercury, or any medicine given internally. Indeed, no advantage is derived from the internal exhibition of medicines, while the disease seldom resists the application of an astringent wash: neither is the constitution
ever

ever affected with pox from excoriations proceeding merely from Gonorrhœa.

It is true that buboes and symptoms of pox sometimes occur where the prepuce and glans have been previously affected in this manner. Of this I have seen many instances: but in all of these it has happened, that on inquiry, the patients were found to have had connection with diseased women during the continuance of the excoriation; and whatever may be the opinion of some individuals upon this point, I believe few will doubt of an ulcerated or excoriated surface being particularly favourable for promoting the absorption of any matter that is applied to it; insomuch, that it is the universal remark of patients, that they never escape being poxed, if in such circumstances they have connection with women that are infected.

It is worthy of remark, that a small, partial excoriation is always at first of a suspicious nature, while from any observation I have been

been able to make, every general affection of this nature, where the excoriation extends over the whole prepuce and glans, terminates easily without producing any constitutional taint. The disease sometimes at first, indeed, occupies a small spot, and afterwards extends gradually over the contiguous parts, and where, by the event, we judge of its being of the most innocent nature from no disease of the constitution being produced by it. But I have uniformly found, where a small part only has remained for some time raw and excoriated, without extending to the surrounding parts, that symptoms of pox succeed to it with as much certainty as they ever do to chancres. I therefore believe, that all partial affections of this kind, which remain for more than a day or two circumscribed, are produced by the matter of Lues Venerea, and that they ought accordingly to be treated as symptoms of that disease. Besides the other differences which we have elsewhere enumerated between the matter of Lues Venerea and
Gonor-

Gonorrhœa Virulenta, it would appear that in this they differ in the most obvious manner. The matter of Lues Venerea, however diffusible it may be when received into the system, from which indeed it is never expelled but with the assistance of mercury, is always slow in its progress while only locally applied either to the penis or any other part. Neither can it be applied, as we have already had occasion to remark, to the smallest point, without much risk of pox being produced by it: whereas, the matter of Gonorrhœa; whether it be applied to the urethra, to the glans, or prepuce, spreads quickly over all the contiguous parts; while it is obvious to daily observation, either that it is not absorbed, or if it be taken into the system, that no constitutional disease ensues from it.

Excoriations of this kind not only resemble Gonorrhœa, in being produced by the same matter, and in being entirely local, but in the method of cure. We have already had occasion to see, that the discharge

charge in Gonorrhœa cannot be certainly removed, but by the use of astringent injections. In like manner, bathing the parts affected in astringent solutions proves the most effectual practice here: Lime-water answers particularly well for this purpose: also solutions of saccharum saturni, and of white vitriol: immersing the parts in brandy, or in a strong infusion of red-rose leaves, will sometimes remove the discharge on the first application. It is proper, however, to remark, that the more frequently remedies of this kind are applied, the more effectual they prove. They should be used at least five or six times daily, and for the space of a few minutes at each application.

Emollient ointments are frequently employed in affections of this kind, but the very cause which renders astringents useful makes every application of this nature improper. They constantly increase the discharge, while no advantage of any kind accrues from them.

Neither do we find that purgatives, or any of the cooling medicines usually prescribed here are of any real utility. When much inflammation takes place, they may, in some instances, prove useful, but in all such cases blood-letting is more to be depended on ; particularly the application of leeches to the parts immediately affected, which, in all local inflammatory complaints, is to be considered as the most effectual remedy.

It has been objected to the application of leeches in excoriations of the penis, that the wounds from the bites of these animals are apt to degenerate into venereal sores. This proceeded upon the idea of all such affections being produced by the matter of Lues Venerea ; but now when we know that this is by no means the case, it is obvious that the opinion must be ill founded ; and from various and repeated trials of the remedy in question I can decidedly say that it is so.

But admitting that a case should occur,
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in which it might be doubtful whether the excoriation and swelling was truly venereal or not, still I would not hesitate in advising the application of leeches: they would prove more effectual than any other remedy in carrying off the inflammatory symptoms, while their bites, if they should put on the appearance of venereal sores, would immediately render the nature of the disease certain, which otherwise might long have remained in doubt.

In all sores and inflammatory affections of these parts, the posture of the body and position of the penis are circumstances requiring particular attention. The patient should be kept as much as possible in a horizontal posture; and the penis should be elevated so as to prevent the glans from hanging pendulous. It often happens indeed, where this is omitted, that swellings remain obstinate for many weeks together, which otherwise might have been carried off in a few days.

SECTION XI.

Of Excoriations in the Parts of Generation of Women.

THE parts of Generation in Women are liable to excoriations of a similar nature with those enumerated in the last section. In some cases they are confined to the clitoris, nymphæ, and labia pudendi. In others they spread to the perineum, and even to the groins and thighs, where, from negligence and want of attention to cleanliness, I have known deep and very extensive ulcers produced.

Where the excoriations are confined within the parts of generation, the symptoms are nearly such as occur from Gonorrhœa in the usual form of the disease ;
but

but where the inflammation and rawness spread to the thighs, a great deal of distress is experienced in walking, and in every motion of the body.

The method of cure is nearly the same in women as in men. Bathing the parts frequently with one or other of the astringent applications mentioned in the last section, for the most part, proves effectual; for the excoriated parts seldom lie so deep as to require the use of the syringe; but when the parts become evidently ulcerated, bathing alone is not sufficient. In this case the ulcers fall to be treated in the same manner with sores proceeding from any other cause. When they are foul and sloughy, an ointment strongly impregnated with mercur. precipit. rub. is perhaps the best application we can use; and for the purpose of healing them, nothing answers better than common cerate, with a large proportion of lapis calaminaris, or unguentum e calce zinci, for which prescriptions are given in the Appendix.

When fores of this description do not soon yield to these applications, and especially when they spread and become deeper while the patient is using them, there will be some cause to suspect that a venereal taint exists in the constitution: in which case a course of mercury should immediately be advised, being the only remedy upon which, in such circumstances, we can place any dependence.

SECTION XII.

Of the Phymosis and Paraphymosis.

IN section tenth we found it necessary to give a definition of these two diseases. Inflammation of the prepuce always excites some degree of thickness and contraction. When the contraction occurs while the prepuce covers the glans,

glans, and in such a degree as to prevent it from being pulled back, the disease thus produced, is termed phymosis. We say that paraphymosis takes place when the prepuce contracts behind the glans and cannot be drawn over it.

One of the most frequent causes of phymosis is chancres on the preputium. The thickening of the skin induced by chancres, and the inflammation with which they are apt to be attended, is often productive of phymosis; but it also occurs from other causes. Whatever excites much inflammation of the penis will induce it. Hence it readily occurs in every case of Gonorrhœa attended with any unusual degree of inflammation, particularly in that variety of the disease where the glans and prepuce are inflamed and excoriated. But although these excoriations often terminate in phymosis, it is certain that they are more frequently productive of paraphymosis. The patient, in clearing away the matter, necessarily draws back the preputium, and when the parts

are previously much inflamed and thickened they are apt to contract so suddenly when in this state of retraction, that they cannot again be drawn over the glans.

In the treatment of phymosis, we are often successful by a proper application of emollients. No effect will result from them when the stricture has been of long duration; but, unless the inflammation is unusually severe, they will often answer if duly persevered in from the first. Immersing the penis, from time to time, in warm milk, or in a decoction of althea root, or of lintseed, is perhaps the most effectual method of applying remedies of this kind; and when much matter is produced between the prepuce and glans, either by chancres or inflammation, these liquids should be injected from time to time with a syringe. But with a view to lessen the discharge, after washing out any matter that may be formed, a weak saturnine solution should be injected three or four times a-day. This, with a low diet,

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abstinence from exercise, and suspending the penis, will, for the most part, prove successful: but when the parts are much inflamed, it becomes necessary to take blood in quantities proportioned to the symptoms, not merely from the arm, but from the penis itself, by the application of leeches, which may always be done with safety where the disease is local, as we have shown to be the case where it proceeds from excoriation or from Gonorrhœa: but when it occurs from chancre, as venereal sores are apt to ensue from the bites of leeches, it is better to omit them.

While any considerable degree of stricture remains, it is always improper to force the prepuce back. This, however, is often done, but it very commonly terminates in paraphymosis; for when the parts are much contracted it is almost impossible to get the prepuce again brought over the glans, if it has once been forced completely behind it. It is better, therefore, to wait till the stricture is entirely removed,
before

before any attempt is made for this purpose. Besides the risk of inducing paraphymosis, the irritation which it gives tends always to render the stricture more obstinate. When the inflammation is altogether gone, it may be proper, after immersing the penis in any of the emollients above-mentioned, and rubbing it gently over with warm oil, to endeavour, from time to time, to stretch it to its usual extent; but even at this period of the disease the prepuce ought never to be pushed back with such force as can excite any kind of uneasiness.

In the treatment of phymosis it is proper to remark, that, in a great proportion of cases, the stricture can never be altogether removed. In slight degrees of it we commonly succeed by the means I have mentioned, but whenever it is severe the parts remain under some degree of contraction, for the most part, during the life of the patient. We have it indeed in our power to remove even the most inveterate stricture that occurs, by laying the prepuce

puce open, either by a partial incision, or cutting it from one end to the other, according to the extent of the disease, but this is a remedy of too severe a nature for the removal of phymosis, in the ordinary form of the disease. Where the prepuce is so much contracted as to interrupt the passage of urine, or to impede coition, it no doubt becomes proper to lessen or remove the stricture, but it is most frequently for obtaining ready access to concealed chancres that we advise this measure of laying the prepuce freely open.

Even chancres are often cured while the prepuce remains contracted; but this is only the flighter kinds of them. Whenever they are either deep or very extensive, although with much care and attention they may in some instances be cured, yet we are much more certain of effecting our purpose, and of doing it speedily, by laying the fores compleatly open. I am clearly of opinion, however, that a patient should rather submit to an ordinary or slight degree of phymosis, where there is

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no disease concealed by it, than incur the pain and distress which must always ensue from this operation. Many have it from their birth, and are not sensible of any inconvenience arising from it.

It happens, indeed, in some instances, even of this natural phymosis, if we may so term it, that we are under the necessity of removing the stricture by an incision. This is particularly the case where the exudation natural to these parts is in such quantities as to excite irritation, which it is always apt to do when it adheres to the prepuce and glans. By much pains in washing with a syringe, the parts may be kept so clean as to prevent them from suffering with this mucus; but in general we find it necessary either to lay the contracted prepuce open from one end to the other, or to remove a portion of it entirely, so as to perform the operation of circumcision.

It may be proper to observe, that although this operation of removing a portion of the prepuce is in itself exceedingly simple

simple and easy, and never fails to answer the purpose where the parts are perfectly sound, that it is very apt to disappoint us entirely, when they are under any degree of inflammation or irritation. In this situation, although the parts in which the stricture is seated be completely removed, the remaining extremity of the prepuce contracts almost immediately after the operation, so as to create nearly the same degree of inconveniency which it did before. By the introduction of dosils of lint, sponge tent, and other such articles, we may for a time prevent the contraction from becoming considerable, but the irritation which these applications excite at last oblige us to lay them aside, when the stricture soon takes place in a degree equal to what it was before the operation.

I have taken the more particular notice of this from different cases having fallen under my management, in which, by endeavouring to remove a contraction of the prepuce by the operation of circumcision, we were completely disappointed. In three
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of these the operation was done by others. In one I performed it myself. But although every thing was done in all of them that might probably render them successful, yet they all failed, and after a considerable time spent in trying to dilate the newly-formed stricture, I was in two of these instances obliged to perform the operation for the phymosis in the usual way, by making a longitudinal cut through all the remaining part of the preputium. In one the stricture was not so considerable as to render it necessary, and in the other the patient would not submit to it.

Were we to remove the prepuce entirely, by dissecting it completely away from that part of the penis where it begins to be formed by an elongation or production of the skin, the operation might probably answer our expectation, but it would leave the glans altogether uncovered, which in those who have been accustomed to have it protected with the prepuce, is apt to excite very disagreeable sensations. Neither can I determine with certainty whether it would,

would, in every case, answer the purpose of giving complete relief or not. Where the parts are previously in a state of irritation, the remaining skin might contract behind the glans, so as to produce some degree of paraphymosis: at least, in one of the four cases to which I allude, a very considerable portion of the prepuce was removed, and yet the remainder contracted in such a manner as to form a stricture which gave much distress.

Different methods have been proposed for performing the operation of a phymosis. For these the writers on surgical operations must be consulted, but the easiest, and perhaps the simplest of any, is that which I have described in the system of surgery†, in which the incision is made by passing a sharp pointed bistoury along a directory between the prepuce and glans, and having pushed the point of the bistoury through the prepuce near to where it begins to form, the cut is completed by drawing the instrument forward; in which

† Chapter X. Section 1.

manner it is done, not only more neatly, but with more expedition, and with much more ease to the patient than in the usual way of cutting the prepuce from before backwards. In this manner the incision is always made at different strokes, by which the cut is apt to be ragged and unequal, whereas in the other it is done at once, and in any direction that the operator may incline.

Some advise the incision to run on the side of the penis, and others along the back of it. The difference in general is not material, but the former appears to me to be preferable, from the matter either of the cut itself, or of concealed chancres not being so apt to lodge between the prepuce and glans, as when the incision is made on the back of the penis. It is proper, however, to observe, that there are two circumstances, which in this operation require particular attention: the large veins of the penis should be avoided, and when chancres are present, the cut ought to run as near to them as with propriety it can
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be made, so as to admit of the easy application of proper dressings.

In the treatment of the parts after the operation, some attention is necessary to prevent the edges of the divided prepuce from adhering to the glans. I have known a good deal of inconvenience produced by this being overlooked, and it is easily prevented by inserting a small pledgit of lint between the prepuce and glans at each dressing.

Paraphymosis may happen either from a stricture of the prepuce, from a swelled state of the glans penis, or from a combination of both.

When it appears to depend, either altogether or chiefly, on a contracted state of the preputium, the same applications should be made to it which we advised for the phymosis. By the use of warm emollients the stricture, when in a slight degree, may be so far removed as to admit of the prepuce being drawn over it. After immersing the penis for a few minutes in warm milk, and rubbing the contracted parts with any emollient ointment, we

may sometimes succeed by applying the fore and middle finger of each hand behind the contracted part of the prepuce, and pulling it gently forward, while, with the thumb of each hand placed upon the glans, we push it firmly backward. This I have done in different instances, which otherwise would soon have ended in strictures of the most confirmed kind. It must, however, be confessed, that it is only in the commencement of the disease that this, or any other manœuvre of a similar kind, will succeed; and there is no room for any such attempt when the disease proceeds from a tumefied state of the glans.

When the disease seems either to be entirely owing to an enlarged state of the glans, or partly to this and partly to a stricture of the prepuce, as sometimes happens, we may endeavour to relax the preputium by rubbing it with oil, or an emollient ointment; but in such circumstances it is evident that the application of emollients to the glans would rather do harm. By relaxing the parts affected they would increase

crease the swelling. Cold astringent applications prove more useful, and ought alone to be depended on. In this view we advise cloths dipped in brandy, vinegar, and cold water, to be applied to the parts, and poultices, with crumb of bread, and a solution of saccharum saturni in vinegar and water. But when these do not soon succeed in reducing the swelling, we are under the necessity of removing the stricture by an operation, in order to prevent the accession of more serious symptoms. When too long neglected the glans is apt to mortify, by the contraction of the prepuce putting a stop to the circulation of the blood.

This operation consists in making one or more incisions into the contracted edge of the prepuce. We sometimes succeed by making two or three small cuts in different parts of the stricture with the shoulder of a lancet. They ought to be carried entirely through the skin and into the cellular substance, and when they bleed freely they commonly give immediate relief;

but it must be admitted that these small incisions, however numerous they may be, do not prove so certainly effectual as one free cut made completely through the stricture. The easiest method of doing this is, by insinuating the end of a director beneath the stricture, and cutting upon it with a scalpel. For this purpose a short director should be used, with the groove open at the extremity.

The incision here does not require any particular attention. The divided vessels should be allowed to bleed freely. This generally lessens the pain, while it co-operates along with the removal of the stricture in carrying off the swelling. Lint, spread with *unguentum saturnium*, makes the best dressing for the sore.

It must be remembered that we are now supposing that no disease exists in the constitution. When either of these affections are conjoined with *Lues Venerea*, as we often find to be the case, the patient cannot be rendered safe, nor will the sores produced by the operation heal without the assistance of a course of mercury.

S E C T.

SECTION XIII.

Of Warts on the Glans and Prepuce, and Labia Pudendi.

THE Glans, Prepuce, and Labia Pudendi, are frequently attacked with warty excrescences, on the termination of Gonorrhœa. They sometimes appear during the continuance of the discharge, but more commonly at the end of it, when the patient having considered the cure as complete, is surprized with the appearance of this new symptom.

They rise at first in the form of small points, which gradually become larger, and frequently so numerous as to cover a considerable part of the penis. In men they commonly begin immediately behind the glans, and extend, in the form of a

ring, round the whole penis, near to the junction of the glans and prepuce. They afterwards appear indiscriminately on all the neighbouring parts, but they are usually most numerous upon the prepuce.

In some cases they are first perceived in the urethra. The patient complains of an obstruction to the flow of urine, and on separating the lips of the urethra, a red, florid excrescence is observed to be the cause of it. I have also met with productions of this kind in the urethra of women.

These warts are seldom painful; never, unless they proceed to a state of ulceration, which, when they do, is always to be considered as the fault of the patient. On their first appearance they are always firm and entire, but when they become numerous, if they be not regularly cleaned, the moisture natural to these parts becomes acrid, and renders them tender; and this, if it be not prevented by timely assistance, soon terminates in painful ulcers. Excrescences of this kind assume various forms. For the most part they are single,
and

and pendulous, with narrow necks, but in some instances they have broad bases; while, in others, a number of these smaller warts sprout all from the same root, and form excrescences of unequal cauliflower kind of surfaces. When long neglected, as sometimes happens with poor people, they acquire such a bulk as to cover the glans entirely; and when in this state they become ulcerated, the whole mass assumes such a diseased appearance, as with those not accustomed to this branch of business, gives a suspicion of their being cancerous. Of this I have met with different instances, where the penis, after being doomed to amputation, has been saved, and the warty excrescences removed.

It is difficult, or perhaps impossible, to ascertain the cause of these warts. In some cases they are obviously produced from the cuticle, their attachment being so slight, that on being removed, the cutis vera is left entire: in others they proceed from the skin itself, but I never observed them to go deeper than this.

Whatever tends to excite the flow of an unusual quantity of blood to the penis, seems to create a disposition in these parts to formations of this kind: hence they succeed to various kinds of irritation. We know that they are a frequent consequence of the venereal irritation, for they often succeed to chancres; and I have known them in different instances succeed to simple excoriation, where neither Gonorrhœa nor Lues Venerea ever existed. By whatever cause irritation is produced in the prepuce and glans, it seems to excite a disposition in the small blood vessels of the parts to sprout or pullulate, by which these warty productions appear to be formed.

As warts are a frequent consequence of chancres, they have been always considered as of a venereal nature, whether they are the immediate effects of chancre, Gonorrhœa, or any other cause. This opinion, however, is by no means well founded. Warts on these parts may, no doubt occur, while Lues Venerea exists in the
con-

constitution; and in such instances mercury must be given before a permanent cure can be expected. But in a great proportion of cases, at least in ninety-nine of a hundred, they appear to be entirely local, insomuch that remedies acting only upon the constitution have no influence whatever in removing them, while they are, for the most part, easily carried off by a variety of applications, which act solely upon the excrescences themselves, or rather upon the vessels by which they are produced. Nay, they are so evidently of a local nature, that when they occur in Lues Venerea, although they are very apt to return when removed while the infection exists in the constitution, yet it is very certain that this disease of the habit may be completely eradicated without any effect being produced upon them. The warts which succeed to chancres commonly remain equally firm and obstinate after mercury has been given as they were before, and are to be removed by the same means as if the constitution had never been affected.

ed. This, I may observe, is a point which in a particular manner merits the attention of practitioners; I mean of such as are not daily versant in this branch of business; for while the opinion is retained, as is still the case with some, of warts on these parts being in most instances connected with Lues Venerea, much mischief is apt to be done by a great deal of mercury being given where no advantage can ever be derived from it. In the treatment of this affection, I have known the constitution almost ruined by one course of mercury after another, without any effect upon the warts, and which were afterwards easily and speedily removed by remedies applied directly to the parts themselves.

I have mentioned irritation as a cause of these excrescences, but it is only the slighter kinds of it that seems to produce them. They often succeed to a slight degree of inflammation, but I have never known them form on parts highly inflamed: on the contrary, much inflammation seems to destroy the tendency in
these

these parts to the production of warts, in-
somuch, that our most effectual remedies
in the cure of these excrescences, and for
preventing a return of them, are such as
always excite a good deal of pain and in-
flammation. They may no doubt be re-
moved more quickly with a scalpel or
scissars, or by tying ligatures of waxed
filk round them, when they are pendul-
ous, and have narrow necks, but they are
more apt to return when removed in this
manner, or even when they are destroyed
with caustic, unless some degree of inflam-
mation has at the same time been indu-
ced upon the parts. Besides, ligatures
cannot be applied to warts with a broad
base, which they frequently have; and
few patients will submit to the use of the
scalpel for the extirpation of the numerous
warts, which in such instances for the most
part prevail.

Inflammation for the purpose of remov-
ing warts might be excited in various
ways; but we necessarily prefer that which
is easiest to the patient, and which at the
same

same time proves effectual. We sometimes succeed by bathing the warts and contiguous parts three or four times a-day with a strong solution of crude sal ammoniac, or of corrosive sublimate. And a solution of mercury in spirit of nitre at the same time that it acts upon the warts themselves as a caustic, seems also, by exciting inflammation in the vessels of the contiguous parts, to remove or destroy the disposition which first produced them. Prescriptions are given for these solutions in the Appendix, Nos. 39, 40, and 41. The two former may be used with freedom, but the strength of the latter renders it necessary to apply it with much delicacy and attention. The parts should be merely moistened with a pencil dipped in it, nor should this be repeated above once every second or third day.

Tincture of cantharides, applied in this manner, sometimes answers; but we find by experience, that our success is more certain from the application of such powders as irritate and inflame the skin, than from

from the use of the same remedies in a liquid form. Savine in fine powder is one of the best for common use. Common mustard, whether of the white or black kind, likewise answers; and I have known the powder of betony, and of white hellebore, both separately, and mixed in equal quantities, prove successful.

If the warts and skin lying between them be sprinkled over with any of these daily, a sufficient degree of inflammation is, for the most part, soon induced, and we know that it has gone far enough when some of the smallest begin to shrivel and drop off. At this time we ought therefore to desist from any farther use of the powder, always taking care to renew it from time to time, if the inflammation subsides before the excrescences are entirely removed. In a few instances, the warts sprout up again after they were altogether carried off. When this takes place, the powder should again be applied over the whole seat of the disease, and continued till such a degree of inflammation is induced as
the

the patient can easily bear. They will seldom or never return again, if the parts at this second application of the remedy have been made to inflame sufficiently.

These powders, even in a simple unmixed state, very seldom fail, but in some patients the warts are so firm, and the skin of the prepuce so thick and corrugated, that powders of a more powerfully irritating nature become necessary. In such cases a small proportion of red precipitate, finely levigated, being added to the pulvis fabinæ, commonly answers. Calomel sometimes proves effectual, whether used by itself, or mixed with any of these powders, and a powder composed of equal parts of alumen ustum and mercur. precip. ruber, seldom fails.

Even when warts are seated in the entrance of the urethra, they may be treated in this manner, at least I have often removed them in this situation by the application of these powders, and I never knew any harm produced by them. In
one

one instance when the wart was farther up the urethra than usual, the excrescence was completely removed by the pulvis fabinæ alone, but a considerable degree of pain was induced by it, which ended in a very copious puriform discharge. The urethra became tender and inflamed, through the whole length of it, and the running having all the appearance of the matter of Gonorrhœa, I suspected that a new infection had been communicated. My patient, however, assured me that this could not possibly be the case, as he had not for many months had any connection with women, and there was no cause to doubt his assertion. The running continued for the space of two or three weeks, with all the symptoms of a common clap, and was cured precisely in the same manner, viz. by the use of astringent injections.

SECT-

SECTION XIV.

Of Gonorrhœa Simplex.

I HAVE endeavoured in different parts of this work to shew that the discharge in Gonorrhœa Virulenta is the effect of inflammation excited in the urethra and contiguous parts by the matter of infection being applied to them. In the end of the preceding section a case is mentioned, in which symptoms occurred exactly similar to those produced by Gonorrhœa Virulenta from the application of an irritating powder to the urethra; and there is reason to suppose that they may at any time be induced by whatever excites inflammation in any part of that membrane. A puriform discharge from the urethra induced in this manner, and without any
con-

connection with an infected person having taken place, may be denominated *Gonorrhœa Simplex*.

We have already had occasion to see that a discharge frequently occurs in females, usually termed *fluor albus*, which, in particular circumstances, very much resembles *Gonorrhœa Virulenta* †.

In men, we often meet with a disease exactly similar to this; where a copious discharge of matter takes place from the urethra, attended with a scalding heat in voiding urine, and all the other symptoms of *Gonorrhœa*, and where there is no suspicion of infection being communicated.

There is nothing more necessary than for practitioners to be aware of this, particularly for the younger part of the profession, who are apt to suppose that every discharge of matter from the genitals, especially in men, ought to be considered as venereal. But although this is undoubt-

† Vide chapter li. section 10.

edly true in a great proportion of cases, yet every practitioner of experience must have met with many instances of the reverse, and in which the reputation of the most virtuous people might have been ruined, were the distinction of which we are now speaking overlooked. I have met with different instances of men newly married being seized with this symptom, in some of which, although there was at first fight much cause for suspicion and anxiety on the part of the husband, yet on being informed by a person on whose judgment they placed confidence, that a running of this kind is not unfrequently induced by other causes, and that the discharge which had newly taken place, would probably shew, by its ending more quickly than *Gonorrhœa Virulenta* usually does, that it was of a different nature, they soon became less anxious, and at last were convinced of their fears having been altogether groundless.

In like manner, I have in different instances been consulted by women, who,
on

on finding their husband's linen stained with matter, have fancied that they themselves had been injured by them; and the imagination being once affected, we all know how difficult it is in such matters to set it right. I was some time ago consulted by a lady in circumstances of this kind, who, from the cause I have mentioned, had long been reduced to a state of the greatest distress and misery. Her mind was in the first place deeply affected with the supposed misconduct of her husband; and she was fully convinced that she herself laboured under almost every symptom which attends the venereal disease. To this she was in a great measure led, by the opinion of a midwife, who unfortunately informed her, that from much experience in matters of this kind, she was convinced that she was poxed, and desired her to apply to me. Instead of this, she put herself under the care of one at a distance from town, where she resided, and who, from not having much experience in matters of this kind, was easily induced to believe that symptoms took

place which did not exist but in the imagination of the patient. There was no external mark of disease, but she complained of pains in her bones; severe pains in the parts of generation and loins; uneasiness in the nose, throat, &c. In short, she had perused a modern treatise on the Lues Venerea, by which she had become acquainted with the symptoms of that disease, almost all of which she now imagined that she laboured under.

A complete course of mercury, besides a variety of other medicines, were given in the country, but no advantage being derived from them, the patient came under my care. It appeared at once that she was diseased in imagination only, for I did not find, on the most minute inquiry, that any symptom of the Lues Venerea had existed from the first. She acknowledged, that at different times, both before and after marriage, she had been much distressed with fluor albus; but this was the only disease of which she ever complained;

ed; and it never was of long continuance.

I endeavoured to convince her that she was perfectly sound, that she never had the disease, and that the matter which she had seen on her husband's linen, and which was the only foundation of her suspicion, was either produced by his connection with her while she was distressed with fluor albus, or by some other cause of a nature equally innocent. All this, however, would have proved ineffectual, but I luckily had an argument in my power which brought conviction along with it, and which, in the course of a few days, made all her symptoms vanish, which otherwise might have been of the most permanent nature. At the very time when she suspected her husband to have given her the infection, he had consulted me by letters, which I preserved, in which he expressed his astonishment at the sudden appearance of a discharge of matter from the urethra, accompanied with heat and uneasiness along the whole course of

the passage from the glans to the bladder, He never had been infected with Gonorrhœa, and having had no connection with any other woman than his wife, of whom he could not entertain the least suspicion, he concludes his first letter by enquiring whether or not such symptoms ever originate from other causes than intercourse with an infected person, and at the same time wished that such medicines might be sent him as would as quickly as possible put a stop to the discharge. In my answer to this, which I also preserved, I mentioned several causes by which a discharge from the urethra may be excited, and especially the effect of repeated intercourse with women labouring under fluor albus, where the discharge is more acrid than usual. I at the same time sent him an astringent injection, desiring that it might be used if the discharge did not soon disappear. In a subsequent letter he informed me, that he had been perfectly convinced by my account of it that his disease was of an innocent nature; and as a proof
of

of it he mentioned, that it went entirely off in the course of eight or ten days, without the injection, or any other remedy, being employed. A fight of this correspondence, which I was enabled to shew, could alone remove the distress under which my patient had long laboured.

I have since that period had occasion to know that her husband has at different times had a return of the discharge from the urethra, in some instances from exposure to much cold, fatigue, or wetness, and repeatedly from connection with his wife when she laboured under fluor albus.

This happened with a patient who never before had any discharge from the urethra; but a running is more particularly apt to occur from causes of this kind, in such as have been frequently liable to Gonorrhœa Virulenta. I know many of this description who uniformly experience a return of the discharge on being exposed to much bodily fatigue, particularly much riding on horseback, or jolting in a carriage on a rough road, on their being overheated.

with wine, or having more connection than usual even with sound women.

The irritation excited in the urethra by a stone in the bladder will, in some instances, induce a very copious discharge of matter. When this takes place from the bladder itself, the matter comes off mixed with the urine, and in no other manner; but when it proceeds from the urethra only, as often happens, it assumes all the appearances of *Gonorrhœa Virulenta*, and passes off whether any exertions be made to empty the bladder or not.

We are led to understand that people who are much employed in working among the warmer kinds of spices are very liable to a scalding in making water accompanied with a discharge of purulent-like matter from the urethra. It is more particularly apt to occur in those who work chiefly among Cayenne pepper: Nay, it has been known to happen from a person carrying a few pounds of this article about with him for sale.

The

The most frequent cause of strictures in the urethra is Gonorrhœa Virulenta; but they also occur from other causes. They have been met with in all periods of life, even where patients have never had any previous discharge from the urethra. They are particularly apt to occur in people advancing in years, between the sixtieth and seventieth year of age, and sometimes later. A person who in his youth has suffered much with Gonorrhœa Virulenta, is very liable to be attacked about this period with strictures in the urethra, but they likewise happen, as I have observed above, where no cause of this kind can be given for them; and in whatever manner they are induced, they are very constantly attended with a plentiful discharge of purulent-like matter.

In some, these strictures have been attended with such a concurrence of circumstances, so similar to those which occur in Gonorrhœa, that the best practitioners have at first been deceived with them. Where the irritation in the urethra has
been

been considerable, sympathetic swellings have occurred in the glands of the groin; and one or both testicles have swelled from the same cause.

It is generally known, that a discharge may at any time be excited from the urethra, by the use of stimulating bougies. This has in different instances been put in practice, where violent pain and other bad symptoms have been induced by the sudden stoppage of a Gonorrhœa, but it has also been advised for the same purpose, that is, for exciting a discharge of matter, merely for the removal of pain, where neither Gonorrhœa nor any venereal symptom had ever taken place; and it has never failed when the stimulus is of a sufficient strength of being attended with this effect.

We are informed by authors, that gout has in some instances been productive of a discharge of puriform matter from the urethra; and I have not a doubt of its happening in rheumatism. Of this I have met with different well-marked instances,
where

where a flow of matter from the urethra has alternated with pains in the knees, and other large joints; and among labouring people accustomed to work much in water, such as ditchers, a discharge of this nature is by no means unfrequent. A patient of mine, who annually takes a great deal of exercise in following game, is always seized with a discharge of matter from the urethra when he goes in search of ducks, by which his feet and legs are kept immersed in water for several days together.

Other causes might be mentioned, by which a discharge from the urethra is at times produced, in every respect similar to the matter of *Gonorrhœa Virulenta*, but these are sufficient to show that it may frequently occur from causes of the most innocent nature, and in persons entirely blameless. Of this, all who have done much business in this branch of practice will be easily convinced, as instances of it are often occurring; but the distress which the want of discrimination
in

in matters of this kind is apt to excite, is often so great, not to individuals alone, but to the families with which they are connected; and I have happened to meet with so many disagreeable occurrences of this kind, which might easily have been prevented, that I judged it proper in this manner to take particular notice of it.

The fact being established that all the usual symptoms of *Gonorrhœa Virulenta* may be excited by a variety of causes, may be considered as an additional proof of the matter of *Lues Venerea*, and of that disease being different; for although the matter produced in this manner in the urethra is so similar to that of *Gonorrhœa* communicated by impure coition, that the one cannot be distinguished from the other, yet no person ever imagined that the symptoms of *Lues Venerea* could be produced by any of these, nor by any cause whatever, but the absorption of the matter of that disease itself.

It may also be remarked, that this opinion of the difference between these two dis-

diseases is farther confirmed by the method of cure being the same, whatever may have been the cause of the running. Whether the matter discharged from the urethra be excited by infection communicated by a person labouring under *Gonorrhœa Virulenta*, or by any of the causes I have enumerated of *Gonorrhœa Simplex*, the method of treatment ought not to be varied. It is true that the latter will, for the most part disappear, whether any remedy be employed for it or not; but this will also happen with *Gonorrhœa Virulenta*. A cure, however, will be obtained much more speedily by a timely and proper use of injections than in any other manner; and if this is admitted in one variety of the disease, it will be found equally applicable in the other. So far, indeed, as my observation goes, the discharge in *Gonorrhœa Simplex* is not more readily affected by the internal exhibition of medicines than we have shewn to be the case in *Gonorrhœa Virulenta*, while a proper application of an astringent injection very seldom

feldom fails in removing it. When, however, it seems either to depend upon general debility, or to be much connected with this state of the system, we find from experience that cold bathing, and whatever tends to restore the loss of tone that has taken place, proves more obviously useful here than in *Gonorrhœa Virulenta*.

APPEN-

A P P E N D I X.

THIS Appendix contains formulæ of injections and other remedies for Gonorrhœa, enumerated in the preceding work.

No. 1. R. Calomel. pp^{ss}. ʒ ii.

Mucilag. gum arab. ii. M. et

adde.

Aq. rosar. ʒ iv.

No. 2. R. Calomel. pp^{ss}. ʒ ii.

Balsam. copaib. ʒ i.

Vitell. ovi. ʒ fs. M. et adde paulatim.

Aq. rosar. ʒ iv.

No. 3.

No. 3. R. Hydrargyr. purif. ʒ ii.
Mucilag. arab. ʒ ii. M. S. A. et
adde.
Aq. destillal. ʒ iv.

These formulæ of mercurial injections seem to act, as I have elsewhere observed, altogether as astringents. They excite little or no irritation, and when they prove successful they commonly do so in the space of a day or two. In all of them the mixture requires to be shaken when used; for even with the assistance of mucilage the mercury subsides so quickly that scarcely any of it will enter the syringe if this precaution be omitted.

Instead of mucilage, prescribed in No. 3, I have sometimes employed honey. This proves more expeditious for extinguishing the mercury, but the injection prepared with it excites more pain. Whether mucilage or honey be employed the mercury should be very completely titrated.

No. 4.

- No. 4. R. Lap. calamin pp^{tt}. ʒ ii.
Balsam. copaib. ʒ i.
Mucilag. arab. ʒ ii. M. S. A. et adde.
Aq. fontan. ʒ iv.
- No. 5. R. Lap. tutiæ pp^{tt}. ʒ ii.
Mucilag. arab. ʒ ii. M. et adde.
Aq. fontan. ʒ iv.
- No. 6. R. Lap. calam. pp^{tt}. ʒ iv.
Camphor. in pauxil. spirit. vin.
rect. solut. ʒ i.
Mucilag. arab. ʒ iv. M. et adde aq.
fontan. lb vi.
Ut fiat injectio.

In No. 4, the quantity of astringent earth is so small that it may be well mixed with the liquid at the time of using it, but in Nos. 5. and 6. where there is a greater proportion of earth, after shaking the phial, it should be allowed to subside for the space of a minute before filling the syringe. In this manner the finer particles only of the earth are thrown into

the urethra; and it commonly proves as effectual as when the whole of it is used.

- No. 7. R. Alumen. ʒ iſs.
Solve in aq. diſtillat. ʒ viii.
- No. 8. R. Cortic. quercus ʒ i.
Coq. in aq. fontan. ʒ xx. ad. ʒ xvi.
colaturæ adde.
Pulv. alumen. ʒ ii.
- No. 9. R. Gall. quercus contuſ. ʒ i.
Coq. in aq. fontan. ʒ xxx. ad
ʒ xx. cola et adde.
Pulv. alumen. ʒ iii.
- No. 10. R. Kin. pulv. ʒ ii.
Mucilag. arab. ʒ i. M. in mortario
et adde aq. font. bul. ʒ x.
- No. 11. R. Kin. pulv. ʒ ii.
Pulv. alumen. ʒ i.
Opii. ʒ ii.
Mucilag. arab. ʒ i. M. et adde.
Aq. fontan. bul. ʒ x.

No. 12.

No. 12. R. Opii 3 i. solve in aq. font. 3 vi.

No. 13. R. Aq. rosar. 3 vii. fs.
Tinctur. thebaic. 3 fs. M.

In a great proportion of cases opium dissolved in water answers the purpose; but in a few instances I have found the spirituous tincture in the proportions here mentioned prove more effectual.

No. 14. R. Balsam. canadens.
Vel copaib. 3 iii.
Vitell. ovi. 3 fs. M. et adde.
Aq. rosar. 3 vi.

When the balsam and yolk of the egg are previously well rubbed together, the water may be mixed with them so completely that no great degree of separation will afterwards take place; but to prevent any inconvenience which might ensue from the balsam getting to the top of the mixture, it should always be well shaken immediately before the syringe is filled with it.

- No. 15. R. Cerufs. 3 ii.
Mucilag. arab. 3 ii. M. et adde.
Aq. fontan. destil. 3 vi.
- No. 16. R. Sacch. saturni. 3 i.
Solve in aq. destil. 3 viii.
- No. 17. Aq. distill. 3 viii.
Acet. lythargyr. gutt. xxiv. M.

When saccharum saturni, or cerussa acetata, as it is now termed, can be obtained pure, it is perhaps preferable for every purpose to vinegar of lytharge, as being of a more determined strength; but it is frequently so much adulterated that it will not dissolve but in very small quantities, even in distilled water. Some of it indeed is so very insoluble, that an ounce of water will not dissolve above a grain of it. By the addition of vinegar this may, it is true, be partly remedied; but vinegar, for many purposes, is not admissible in such quantities as would be necessary for rendering this article much
more

more soluble than we usually find it. Two, three, or more drops of the vinegar of lytharge may be used in every ounce of injection. Two drops often prove sufficient, but many can bear eight or ten.

The following method of preparing vinegar of lytharge is the best I have met with. It is not very different from the extract of lead of goulard, but the strength of it is more certain.

R. Lythargyri lb. iii.

Acet. destillat. lb. x. coq. leni igne
ad lb. vi.

Cola.

Besides boiling on a slow fire, during which time it ought to be well stirred with a wooden spatula, the whole should be allowed to cool, and the fæces to subside before straining.

Lead dissolved in this manner is easily mixed with water, and it proves to be a very convenient, as well as a very effectual method of using it.

No. 18. R. Zinci vitriolat. vulgo vitriol.
alb. 3 fs.

Solve in aq. font. destillat. ℥ xvi.

No. 19. R. Zinci vitriolat. ʒ i.

Solve in aq. destillat. ℥ x. et adde.

Acet. lythargyri gutt. xx, ut. f.
injectio.

In some cases, where these articles have excited pain when used in this manner, they have been rendered perfectly mild by the addition of mucilage of gum arabic, and in others by camphor. Camphor does not dissolve completely in any watery fluid, but being previously well rubbed with a few drops of spirit of wine, as much of it may be mixed with the water as to render the other articles much less pungent than they otherwise would be. The camphor, however, separates in such quantities as renders it necessary to filter the solution before using it.

Although a precipitation necessarily takes place from a mixture of vitriol and saccharum saturni, the following combination

tion of these two articles with opium gives
a very useful form of injection.

No. 20. R. Vitriol. alb.
Sacchari saturni. a a 3 fs.
Camphor, 3 i.
Opii. 9 ii.
Solv. in aq. fontan. bul. 3 xvi.
Cola.

No. 21. R. Fol. rosar. rub. 3 fs.
Alumen. pur. 3 ii. infund. in aq.
bul. 3 xvi. Cola. ut f. injectio.

No. 22. R. Balsam copaib.
Vitell. ovi. a a 3 fs. M. et adde.
Infus. rosar. rubr. 3 xvi.

No. 23. R. Cap. papaver. alb. 3 iv.
Rad. altheæ incif. 3 i.
Infund. per noctem in aq. bul.
3 ii.
Cola.

No. 24. R. Hydrargyr. muriat. vulg. mer-
cur. sublimat, corrosiv. gr. i.

F f 4

Solve

- Solve in aq. fontan. $\frac{3}{4}$ x.
- No. 25. R. Mercur. sublim. corros. gr. i.
Acet. lythargyr. gutt, xvi.
Aq. fontan. $\frac{3}{4}$ viii. M. S. A.
- No. 26. Mercur. sublimat. corros. gr. i.
Mucilag. arab. $\frac{3}{4}$ ii.
Aq. fontan. $\frac{3}{4}$ vi. M.

Corrosive sublimate dissolved in water proves to be the most certain, and perhaps in every respect the best form of a stimulating injection. Some have advised a much stronger solution than any of these, even to the extent of a grain of mercury to three or four ounces of water. I suspect, however, that those who recommend it of this strength have never made use of it, at least I have never met with any who could bear it. When the mercury is combined with water alone, as in No. 24. one grain to ten ounces proves sufficiently strong; but when mixed with saccharum saturni, with acetum lythargyri, or with mucilage, as in Nos. 25. and

26. a grain may be added to fix or eight ounces of water. When mixed with either of the two first of these articles, some part of the mercury precipitates, and is therefore lost, and in the other the mucilage tends evidently to render it less active.

No. 27. R. Sal. ammon. crud. gr. x.
Solve in aq. font. 3 x.

No. 28. R. Aq. fontan. 3 x.
Spirit fal. aromat. gutt. lx. M.

No. 29. R. Aq. fontan. 3 x.
Sprit. corn. cervi gutt. lx. M.

No. 30. R. Formul. inject. No. 23. 3 viii.
Lixiv. caustic. gutt. xx. M.

I have frequently found both the volatile and caustic alkali prove useful where other injections had failed, but we cannot with any certainty point out the strength for any individual. While one is able to bear

bear ten drops to every ounce of water, others cannot bear above three or four : The strength I have advised in the three preceding formulæ proves to be the best for general use, but patients are more easily affected with variety in the strength of these injections, than of any other I have ever tried. The caustic alkali may be used in water alone ; but it may be ventured upon in larger quantities, and with more safety, when combined with a mucilaginous infusion.

No. 31. R. *Ærug.* pp^{ta}. gr. viii.
Ol. oliv. Op^{ta}. ʒiv. M.

No. 32. R. *Ærug.* pp^{ta}. ʒi.
Spirit. corn. cerv. ʒiv.

Digere et cola.

R. Solut. supr. parat. gutt. xl.

Aq. distillat. ʒx. M.

Verdegris mixed with oil may be used with perfect safety of the strength mentioned in No. 31. but as injections prepared

pared with oil prove dirty and disagreeable in the application, I commonly prefer the form of the remedy No. 32.

A much larger proportion of verdegris is commonly advised, but when more is employed, it precipitates immediately on being added to the water. Even of this strength the precipitation cannot be prevented entirely but by adding about a half more of the volatile alkali to the filtered solution of the verdegris. After filtering through paper, if two ounces of volatile alkali be added to it, no precipitation will take place if distilled water is employed; but in this case, a greater quantity of the solution may be added to the same quantity of water. Instead of forty drops, forty-eight or fifty may be added to ten ounces of water.

No. 33. R. Aq. fontan. $\bar{3}x$.
Tinctur. cantharid. gutt. xx. ad
xxx. M.

The

The three following are prescriptions for bougies.

No. 34. R. Emplast. diachyl. simpl. z iv.

Cer. puriss. z ifs.

Ol. oliv. opt. z iii.

No. 35. R. Emplast. commun.

Spermat. cat. a a z iv.

Ol. oliv. opt. z fs.

Minii, z fs. M.

No. 36. R. Emplast. commun. z vi.

Ceræ flavæ puriss.

Spermat. cat. a a z ii.

Ol. oliv. opt. z i.

Antimon. crud. pp^t. z fs. M.

S. A.

Any of these prescriptions afford a good composition for bougies. They require to be slowly melted, and the different articles to be well mixed together. No. 34 is the simplest and perhaps the best, the red lead in No. 35. and antimony in No. 36.

No. 36. being added chiefly for the purpose of affording a variety of colour.
 No. 37. is a composition for bougies recommended by Mr. John Hunter *. and
 No. 38. by Mr. Sharp †.

No. 37. Take of oil of olives three pints,
 Bees wax one pound,
 Red lead a pound and a half. Let them be
 boiled together on a
 slow fire for six hours.

No. 38. R. Diachyl. cum pice burgund.
 ℥ ii.

Argent. viv. ℥ i.

Antimon. crud. pp^{tt}. ʒ fs.

The quicksilver to be previously dissolved in balsam of sulphur, or in honey, and added to the plaster when melted in a moderate heat.

Any of these compositions, when boiled to a proper consistence, will answer for

* See Treatise on the Venereal Disease, p. 137.

† See Critical Enquiry by Samuel Sharp, F. R. S. &c.
 the

the formation of bougies, which is done in the following manner: While the liquid still continues warm, let a piece of fine old linen be dipped in it, taking care with a spatula to cover the whole of it. If the melted liquor be of a proper heat, no more of the plaster will adhere to the linen than is necessary; but as air bubbles are apt to rise and produce inequalities on the surface of the cloth, the spatula made use of should be somewhat warmer than the plaster, and by means of it the whole should be made as smooth as possible. The plaster might indeed be spread entirely with the spatula; but this is not only attended with more trouble, but it does not cover the cloth with sufficient equality.

The cloth being sufficiently cold, may be immediately formed into bougies, and the whole should, in the first place, be cut into the number that is meant to be made. The most exact method of doing this is by means of a sharp pointed knife directed by a rule. The pieces should be eleven
inches

inches in length for bougies of a full size; but they should likewise be kept of all the variety of lengths for strictures of different heights in the urethra.

A variety of directions have been given for the form of bougies. Some advise them to be made nearly of an equal thickness to within an inch of their smallest end, and to taper from that to the point, while a great proportion of them are made to taper to within an inch or two of the point, and the rest of them are cylindrical. I once thought that this last form of bougie was the best; but after a long course of experience in this branch of business, I am now convinced, that bougies, which taper equally from one end to the other, are the best, and that this form answers equally well for every variety of size. They are introduced more easily, and with less pain than any of the others; the linen should therefore be cut in such a manner as to give this form to the bougies. When rightly spread, and the linen sufficiently fine, a well shaped bougie will be formed
of

of a slip of about five eighths of an inch broad at its largest end, and somewhat more than three eighths at the smallest end. This forms a bougie of a middle size; for particular purposes they must be considerably larger, and for others not so large by a great deal.

These slips of linen are now to be rolled up as neatly as possible with the fingers; and in order to give them a smooth polished surface, they should be smartly rolled between a piece of smooth hard timber, and a plate of fine polished marble: This being continued till the whole are rendered perfectly smooth and firm, and their points being properly rounded in order to facilitate their introduction, they are in this state to be kept for use.

These directions will convey an idea of the method of preparing bougies, but no surgeon can ever become so expert in forming them as those artists who are daily accustomed to prepare them in large quantities. I must here again observe, however, in addition to what I had occasion

occasion to remark, in a former part of this work, that bougies, properly prepared with *resina elastica*, are preferable, in many circumstances, to such as are made with any kind of plaster. They not only prove much more durable, but more force can be employed with them, and as they do not break or crack by remaining in the urethra, they remain in it with less pain and inconvenience than any other bougie that has yet been invented.

Cat-gut has frequently been used as a bougie; but after various trials being given to it, I do not find that it answers the purpose: It cannot be made sufficiently smooth, and it sometimes swells so much as to excite a good deal of irritation; and lead, which was one of the first articles used for bougies, is so firm that it always creates much pain, while at the same time it is so apt to break that different instances having occurred of this happening in the urethra, it has now been long laid aside.

The fix following prescriptions are meant for the removal of warts and other excrescences, and they answer equally well whether they proceed from Gonorrhœa or Lues Venerea. It would appear, however, that there is a material difference between the warty excrescences which occur as a consequence of these diseases, and such as we usually meet with from other causes; for while the former are for the most part easily removed by any of these applications, even by the pulvis sabinae alone, the latter are seldom acted upon by any of them, if it be not by the strong solution of corrosive sublimate in No. 40. and of mercury and spirit of nitre, No. 41. both of which are possessed of a strong degree of causticity.

No. 39. R. Sal-ammon. crud. ζ i.
Solve in acet. distellat. ζ ii.
Aq. fontan. ζ iv.

No. 40. R. Hydrargyr. muriat. vulgo
merc. sublim. corros.

Sal

Sal-ammon. crud. a a. $\bar{3}$ ss.

Solve in aq. fontan. $\bar{3}$ iv.

No. 41. R. Argent. viv. $\bar{3}$ i.

Solve in spirit. nitr. fort. $\bar{3}$ ii.

No. 42. R. Pulv. fol. fabin.

Calomel. a a. $\bar{3}$ i. M.

No. 43. R. Pulv. fol. fabin.

Mercur. sublim. corros. a a. $\bar{3}$ iii.

Mercur. precip. rub. $\bar{3}$ i. M.

No. 44. R. Alumen. ust.

Mercur. precip. rub. a a. $\bar{3}$ i. M.

The following form of decoction of far-
saparella and mezereon is of a strength
which most people can bear; when a
greater proportion of mezereon is added,
it excites sickness, and a very disagreeable
sensation in the throat. I mention it here
as I have had occasion to speak of it in the
preceding work; and I shall also have cause
to refer to it when treating of a Lues
Venerea.

- No. 45. R. Rad. farfæ ʒ ii.
 Cortic. radic. mezer. ʒ iſs.
 Coq. in aq. fontan. ʒ iii. ad ʒ ii.
 Colaturæ, adde.
 Syrup. altheæ ʒ i.

The following is the Decoctum Lusitanicum, or Lisbon diet-drink.

- No. 46. R. Rad. farfaparil.
 Santal. alb.
 Rubr. a a. ʒ iii.
 Rad. glycyriz.
 Mezerei. a a. ʒ ſs.
 Ligni rhodii.
 Guagaci.
 Sassafras. a a. ʒ i.
 Antimon. crud. ʒ ii. miſce, et
 infunde in aquæ fontanæ bul-
 lientis. ʒ x. per horas xxiv.
 dien, coque ad ʒ v. colaturæ
 capiat a ʒ iſs. ad ʒ iv. quo-
 tidie.

Vel R. Rad. farfaparillæ.
 Ligni ſaſſafras.

Ligni

Ligni fantal. rubri.

Guagaci a a. ʒ iii.

Cortic. rad. mezer. ʒ i.

Semin. corriand. ʒ vi.

Coq. in aq. fontan. lb xx. ad lb x.

Sumat lb ss. ter quaterve indies.

Unguentum e calce zinci.

No. 47. R. Olei olivarum opt. ʒ iii.

Ceræ albæ.

Sperm. cetæ a a. ʒ iii.

Leni calore liquefc. dein adde.

florum zinci ʒ ss.

Unguentum e lapide calaminare.

No. 48. R. Olei oliv. opt. ʒ iii.

Ceræ albæ. ʒ ifs.

Sperm. ceti. ʒ ss.

Lapid. calamin. pp^{tt}. ʒ v. M. S. A.



